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BUSINESS SAVING IN INDIA

BUSINESS SAVING IN INDIA

AN ESTIMATE AND AN ANALYSIS IN RELATION TO PROFITABILITY AND THE GROWTH OF THE NATIONAL SAVING RATE

BY

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To

BRAHMA PRASAD DAS

and

CORNELIS DE HAAN

FOREWORD

It needs little argument that the problem of saving is of crucial importance to underdeveloped countries. Modern theories of economic growth all give a central role to the rate of capital accumulation. The Harrod-Domar model makes the rate of growth of the national income immediately dependent on and proportional to the rate of saving. It has become clear that we must compare this "warranted rate of growth" with the natural rate as determined by population growth and the rate of increase in the productivity of labour. In developed countries this natural rate of growth may be smaller than the warranted rate. In that case the Keynesian situation of an abundance of saving or of a lack of investment opportunities will obtain.

In the underdeveloped countries, however, we will generally find the opposite case: the natural rate of growth is larger than the warranted rate as determined by capital formation. The possibilities of growth are then to a very large extent dependent on the rate of saving. The real goal of development policy should therefore be *to start a process of growth which will gradually increase the rate of saving.* It is only when a country succeeds in raising its rate of saving to a higher level that it achieves its "take-off" in Prof. Rostow's words, and that it can further continue in a line of growth, which will more or less automatically produce a continuous increase in welfare.

In this context it is clearly very necessary to know more about the rate of saving and its determining factors. The role of business savings is especially important because the opportunities to increase the rate of saving are probably in the first place to be found in an increase of business savings. We know that in many western countries the marginal rate of saving out of profits is very high. An increase in profits can therefore produce a higher rate of saving. It seems important to know whether this is also true for underdeveloped countries.

For all these reasons Dr. Mazumdar has made a study of business savings in India. He has started by bringing together the available data on savings in general in order to ascertain the relative place of business savings in the total picture. He then studies the data on business savings more in detail, comparing different methods of estimating these savings and finally adding an estimate of his own on the important category of unincorporated enterprises.

He then clarifies the meaning of the figures he has found by making various comparisons of the rates of saving in different sectors and different countries.

Having thus given a more or less static picture of the situation, Dr. Mazumdar then proceeds to investigate the relationship between business savings and profits. Besides the average rate of saving out of profits he also measures the marginal rate.

His conclusion is that the marginal rate of saving out of profits is very high, so that there is not much difference here with more developed countries. From these results Dr. Mazumdar finally draws some tentative but interesting conclusions.

Mr. Mazumdar has made a painstaking study of a difficult subject. He has certainly not been able to solve all the difficulties and to present a set of figures which is flawless from a statistical point of view. With the material that is now available this is not yet possible; but I may express the hope that Dr. Mazumdar's work may stimulate interest in the problem of saving, promote further research and in this way prove a useful contribution to the building of a body of knowledge that may be of real help to the underdeveloped countries.

Prof. Dr. H. J. Witteveen

The Netherlands School of Economics
Rotterdam

PREFACE

The present study was undertaken with the modest aim of improving upon the existing estimates of business saving in India. However, it was conceived in the context of the developmental problems of the whole economy and therefore it differs rather markedly in its orientation from a few other well-known studies of business saving in the high-income countries. The latter are chiefly micro-economic types of studies, while the present study emerges out of an interest in the question of the growth of the Indian economy as a whole and is therefore macro-economic in scope.

The plan of the book is evident from the arrangement of the contents. The main task in the first part is to make an estimate of business saving in India; which is undertaken in Chapter 3. Chapters 1 and 2 seek to clarify the concepts and the tool, and give a review of the sources.

The main purpose of the second part is analysis, though descriptions and estimates that are incidental to that purpose are also included.

Chapter 4 — an analytical description of the Indian economy — sets the stage for several lines of analysis and international comparison. In Chapter 5 an analysis of the inter-industrial pattern of profitability and an international Comparison (mainly all-industry average rate of profit) are made. In Chapter 6, an analysis of the relation between business saving and profitability is attempted and the corporate marginal saving propensity is measured.

Chapter 7 directly proceeds to demonstrate the relevance of the marginal saving propensity of the different sectors to the growth of the rate of national saving and then sumps up the main conclusions and suggestions.(1) It may be pointed out that the measurement of the marginal saving propensity in Chapter 6 brings our static line of study to a threshold, so to speak, from where dynamic analysis can begin. The link with dynamic study is brought out — clearly, I hope — in the second section of the concluding chapter (Chapter 7). The relation between the marginal saving propensity of the different sectors and the changing proportions of the income of the various sectors surely lie in the field of dynamic economics. Further working out of the process would be best done by using the algebraic form of expression and by accurately measuring the sectoral shares of the additional national income. Owing to lack of time and space, however, these could not be fully pursued. But it is the present writer's hope that the use of static and dynamic analyses in their appropriate spheres and the link between the two, rather than a rigid adoption of the one to the exclusion of the other, will have commended themselves from the present study.

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(1) This is the broad framework. Of course, the division of the book into two parts - estimative and analytical - is only a convenient device and the reader should not be surprised at finding many analytical observations in the estimative part, and some description and estimates in the analytical part.

It is the author's firm conviction that scientific work is a cooperative venture and that each piece of research is problem-solving and problem-posing at the same time — an invitation to further research. The present work poses many problems and perhaps indicates a few lines of advance; it certainly invites further research. The whole work has been conducted in this spirit, and should be viewed in the same spirit.

Prof. Dr. H. J. Witteveen was intimately connected with the work right from its inception and has therefore stated most aptly the main reasons governing the choice of the subject-matter of the present study. I must say that my interest in the problems of growth of the Indian economy led me to undertake a study of the whole field of saving. I was soon impressed by the importance of business saving and by the lack of any comprehensive study of the subject from the point of view of growth even in the high-income countries.

I am grateful to Prof. Witteveen for contributing the foreword and giving so much of his time and thought to my work, besides rendering many other kinds of help during my stay in the Netherlands.

I am thankful to the Netherlands Economic Institute for taking me on its staff in the Division of Balanced International Growth and for giving me great freedom in planning my research. But for its help and the encouragement and generosity of its Director of Research, Prof J. Tinbergen, it would not have been possible for me to complete this work. Indeed, my debt to Prof. Tinbergen and that gracious lady, Mrs. Tinbergen who has been such a guide and friend to my wife and who kept such a sympathetic watch over our welfare throughout our stay in the Netherlands, is hard to measure.

I thank my colleagues in the Division of Balanced International Growth for much cooperation. In particular, I received help from Mrs. Ciceley W. Blanco of Cleveland, Messrs. H. Bos and P. Roeske. Mrs. Blanco kindly looked through most of the manuscript and offered many valuable suggestions and criticisms.

Dr. J. B. D. Derksen kindly extended the hospitality of the Central Bureau of Statistics of the Netherlands which enabled me to do a lot of work without losing time in travelling daily from the Hague to Rotterdam and back. I am thankful to him and the members of his staff who rendered valuable help in my work.

It is at the Central Bureau of Statistics that I came in touch with Mr. W. H. Somermeyer, Econometrician at the Bureau, who took a very keen interest in the work and made many valuable suggestions to improve the quality of the work. Working with him has been a pleasure which I shall always remember.

My wife's share in my work is too varied to be mentioned. I must say that but for her patience, sacrifice of personal pleasures and assistance in preparing the manuscript, my task would not have been accomplished. Much of the simplification in the style of presentation, wherever noticeable, owes its origin to her.

Mr. Cornelis de Haan has earned my deep gratitude by helping me in all possible way. I am happy that his magnanimity in enthusiastically accepting the joint dedication enabled me to give expression, if only feebly, to my sense of gratitude to him. I am entrusting the copyright of the book to him because in his hands my interests will be better preserved than in my own.

Finally, I thank my publishers, particularly their representative, Mr. J. M. Knol, for their wholehearted cooperation in publishing the book within a short time.

H. M.

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ABBREVIATIONS *

AIRCS	The All-India Rural Credit Survey conducted by the Reserve Bank of India.
CIM	The Census of Indian Manufactures.
CSO	The Central Statistical Organization.
DWP	Deshmukh's White Paper on Estimate of Capital Formation in India during 1948—53.
ENI	Estimates of National Income as published by the CSO.
FFYP	The First Five Year Plan.
SFYP	The Second Five Year Plan.
M-G	Mukherjee & Ghosh, joint authors. (See text or bibliography).
NIC	The National Income Committee.
NSS	The National Sample Survey.
RBI	The Reserve Bank of India.
RBIB	The *Reserve Bank of India Bulletin.*
SIFLA	Survey of India's Foreign Liabilities and Assets. (The abbreviation is also made to cover the Census of India's Foreign Liabilities and Assets — CIFLA — but then it is called *Report I*).
TEC	The Taxation Enquiry Commission, 1953—54.

Indian Terminology.

Crore	Refers to 10 million.
Lakh	Refers to 100,000.

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* Not all the abbreviations used in the book are listed here; only the most important ones are. These abbreviations are used with or without full stops between the letters.

"The human understanding is no dry light, but receives an infusion from the will and affections, whence proceed sciences which may be called 'sciences as one would'."

Novum Organum, i, 49.

PART I

ESTIMATIVE

CHAPTER ONE

INTRODUCTION

1. DEVELOPMENT OF INTEREST IN THE QUESTION OF SAVING

In one form or another, saving has always received attention in economic literature, though a clear-cut grasp of the relation between saving, investment and capital formation can be said to be emerging only now, after the Keynesian revolution has had time to permeate the entire corpus of economic thinking.

In the thinking of the classical masters, accumulation proceeded in real terms and the virtues of saving were *obiter dicta*[1], while the perspective of growth remained always in the forefront. The neo-classical thinkers[2], on the other hand, engaged themselves in trying to discover the relation connecting saving, investment and the rate of interest. Gradually, the perspective of growth got lost and static analysis became the dominant preoccupation of economic theory.

The practical importance of saving was seen during the First World War, and to check inflation saving drives were undertaken. In general, the ethical ideas about saving being a virtue persisted, until Keynes showed that saving — in the developed capitalist countries, let us say in parenthesis — was a vice rather than a virtue. Detailed information on saving was unknown.

In contrast, the recent interest in the question of saving in economic literature is part of the resurgence of interest in economic growth. It is of practical importance and theoretical consequence at the same time. This interest in the question of saving (and economic growth) stems from two confluent currents: one arising from within the body of economic thinking itself, — from an internal impact, so to speak; the other arising directly out of the post-war economic, political and social reality — out of an external impact, let us say. The internal impact was that thrown up by Keynes' *General Theory*, a theory which most challengingly sought to demolish the classical ideas about saving: It denied any possibility of an inequality between saving and investment; it denied the causal nexus that had been supposed to exist between saving and the interest rate. Instead, saving was functionally connected with *changes* in the level of income via the marginal propensity to consume.

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[1] Cf. Harrod, "... the great masters do not appear to have done their best work in this department". *Towards a Dynamic Economics* (Macmillan, London 1952), p. 35.

[2] For a brief summary of the classical and neo-classical concepts and theories of saving, see two articles by Prof. B. R. Shenoy: (1) "The Classical Theory of Saving", *Indian Journal of Economics* (Allahabad University), October 1947; (2) "Static Equilibrium Theories of Saving", *Indian Economic Review* (Delhi University), August 1953. For an extended treatment of the pre-classical, classical, Keynesian and contemporary concepts and theories, see Prof. L. J. Zimmerman, *Sparen, Beleggen en Investeren in de Economische Literatuur* (Nijhoff, The Hague 1941), which title can be translated as "Saving, Investment and Capital Formation in Economic Literature". I could follow the book only in snatches due to my inadequate knowledge of the Dutch language.

Among other things, this stimulated interest in measuring marginal propensities to consume [1] and to save. Meanwhile, the progress of national income research was also proceeding *pari passu*, making it more and more possible factually to determine the connections between national income, saving, capital formation, etc., and leading to theoretical reformulations. Simon Kuznets' finding of a relatively stable ratio of saving in the United States over a fifty-year period during which the real national income increased more than four-fold, led to a research and then to a re-formulation of the theory of saving by James Duesenberry[1], which has become famous for the acute sociological insight with which he explained the stability of the consumption function.

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[1] Among the first to take up the issue were Elizabeth Gilboy (see her article "The Propensity to Consume", in the *Quarterly Journal of Economics*, November 1938). Articles in the same journal by Messrs Keynes (Feb., 1937), Holden (Feb., 1938) and Lange (Feb., 1938) all are connected with the same question. R. & W. M. Stone, "The Marginal Propensity to Consume and the Multiplier — A Statistical Investigation", *Review of Economic Studies*, Vol. VI (1938/39), p. 1 ff. The Stones' investigation extended, besides Great Britain, to Germany, Poland, Sweden, United States, and the Netherlands. A. L. G. M. Rombouts computed figures for separate earning groups in the Netherlands; quoted from *De Nederlandsche Conjunctuur* by Jan Tinbergen, *Econometrics* (English edition, George Allen & Unwin, London 1953), p. 96.

The study of consumers' expenditure itself, the so-called budget study, has a long history and stems from interest in labour welfare and from efforts to ascertain the workers' cost of living from the point of reviewing wage claims; (later, also from the point of view of demand analysis under market research programmes). One of the earliest of such studies resulted in the formulation of the famous Engel's law. For a brief resumé of developments in this field, particularly in the U.S.A., leading to some of the largest sample surveys, see Woytinsky & Woytinsky, *World Population and Production-Trends and Outlook* (The Twentieth Century Fund, New York 1953), p. 268; also Dorothy Brady in NBER *Studies in Income and Wealth*, Vol. X.

For further references, see Ruth P. Mack, "Economics of Consumption" in *A Survey of Contemporary Economics*, Vol. II (Edited by B. F. Haley; Richard D. Irwin, Inc., Homewood, Illinois 1952), especially pp. 50n, 51n, 53n & 54n. These include many postwar studies and discussions.

Analysis of marginal propensities could thus proceed almost as soon as Keynes' theoretical formulation suggested it, because a storehouse of factual knowledge had already been gathered.

Keynes' ideas about the general operation of the economic system in his otherwise static analysis of a short-run model was soon extended by Harrod[2] into a long-run (dynamic) theory of growth, which has come much into prominence after the war in the form of what has come to be known as the Harrod-Domar type of model. The basic characteristic of such a model is the central place given to saving and capital among the basic variables; and the essential property of the model is the oscillation caused from within the system. Parallel with this ran the so-called stagnation hypothesis of the Hansenian and Steindlian varieties. All these served to sustain interest in the question of saving and to subject it to both theoretical examination and quantitative determination.

The external impact came even more pressingly, bringing in its train a sense of inescapable urgency. The wartime need of saving was to continue equally urgently in the period of postwar reconstruction. But that in any case was to be a temporary need, if we were to think in terms of the high-income countries only. No, the more abiding external impact was the stepping into history, of those regions of the world that have been hitherto outside the pale of history — the so-called underdeveloped countries. Political stability of the world now depended so much on the economic regeneration of these countries. The realisation was dawning upon men of affairs that "poverty anywhere is danger to prosperity everywhere"[3]. Above all, the urge of these newly free countries to build a new economy by themselves moved them towards Planning.

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[1] James S. Duesenberry, *Income, Saving, and the Theory of Consumer Behavior* (Harvard Economic Study No. 87, Cambridge, Mass., Second Printing 1952).

[2] First in his article in the *Economic Journal*, March 1939; and later in his *Towards a Dynamic Economics* (Macmillan, London 1952). It is of course more than a mere extension. For an appreciation of Harrod's contribution, see S. A. Abbas, *Capital Requirements for the Development of South and South-East Asia* (Wolters, Groningen 1955), Chapter III titled "Harrod's Theory of Growth".

[3] President Truman's famous Inaugural Address to Congress on January 20,

It is natural, therefore, that, whatever the direction from which the impact came, as soon as the pre-occupation with the problems of growth gained in ascendancy, searchlights were turned on the question of saving — the prime mover of growth.

2. IMPORTANCE OF SAVING AND ITS QUANTITATIVE KNOWLEDGE

The movement towards Planning that we mentioned above is distinct from planning at the micro-economic level, such as planning in industrial and other sectors of the economy which is sometimes said to have always existed. The sort of Planning we are referring to is planning economic development of a whole country, necessarily with a centralised direction — macro-planning, that is. Since it is planning economic growth, it requires accurate knowledge, — or where that is not to be had, the continuous improvement in the knowledge (or developing knowledge where none exists) — of the many variables involved in the growth process [1]. It requires, above all, that a factual information of the most fundamental variables determining the growth of an economy is gathered, namely, the rate of saving, the capital coëfficient, and the rate of population growth.

Of these, only the demographic data are at a relatively more satis-

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1949, the relevant part of which has become popular as the Point Four.

Compare for our resumé of the interest in the question of saving (together with growth) in Domar:

"The present interest in growth is not accidental; it comes on the one side from a belated awareness that in our economy full employment without growth is impossible, and on the other, from the present international conflict which makes growth a condition of survival".

— "Economic Growth: An Econometric Approach", *The American Economic Review — Papers & Proceedings*, May 1952.

[1] Growth defined as a rise in per capita income (or product).

The major factors of growth are: (1) Land including natural resources; (2) population, or more strictly, the working force; (3) total amount of capital; (4) technical possibilities; (5) entrepreneurial ability, to include the organisation of the monetary system and other institutional factors; (6) consumers' preferences; and, in an open economy; (7) relationship with outside economic units. These were stressed, and from these, the supreme rôle of capital (saving) and technical possibilities in the shape of capital coëfficient were skilfully isolated for a theoretical analysis in his lectures on growth by Prof. Witteveen. Ref. to those lectures is to be found in Abbas, *op. cit.*

factory level of availability in India, the experience of taking population census being nearly 80 years old. Attempts at estimating total savings are recent; and those of ascertaining capital coëfficient are still more so[1].

Thus in a simplified growth model where $G = \frac{s}{k} - N$, G signifying growth in per capita income, s the rate of saving, k the capital coëfficient, and N the rate of population growth (G being functionally related to s, k and N), any knowledge of growth presupposes the knowledge of the values of s, k and N. Where N is known, the knowledge of s and k assumes great importance. The difficulties of knowing both these are great. In India the study of capital coëfficients relevant to the planned sectors of the economy are under way and the results are satisfactory, though revealing in nature[2].

Working estimates of national income being available for India, the task of determining s, the rate of saving, reduces itself to estimating the quantum of saving. Beginnings have been made in this direction and we broadly report them in the next chapter. Suffice it to state here that these are yet unsatisfactory and stand in great need of improvement [1].

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[1] Recent studies of capital coëfficients in the high-income countries can be found in E. H. Stern, "Capital Requirements in Progressive Economies", *Economica*, August 1945; W. Leontief & others, *Studies in the Structure of the American Economy* (O.U.P., New York 1953); R. W. Goldsmith, "Growth of Reproducible Wealth of the United States of America from 1805 to 1950" in *Income & Wealth Series II* (Bowes & Bowes, Cambridge 1952). For low-income countries, M. L. Gupta, *The Problem of Unemployment in India* (Diss., Rotterdam 1955) for India; S. A. Abbas, *op. cit.*, also only for India so far as low-income countries are concerned. For many useful references, see the *Provisional Bibliography on Capital-Output ratio* (mimeographed) compiled by the Netherlands Economic Institute's Division of Balanced International Growth, Rotterdam.

The biggest drawback of calculating capital coëfficients is the exclusion of the problem of excess capacity. For a long-period average in capitalist countries, this question can be viewed as a structural average, and it would not be misleading. For newly developing countries operating a planned economy, the question of excess capacity is of supreme relevance. It makes nonsense of an undifferentiated approach to the question of excess capacity. The Indian Statistical Institute has found that for a number of heavy industries the capital coëfficient in India is relatively very small, e.g., gross capital coëfficient for heavy machinery, just 1: heavy chemicals 1.3; trucks 1.5; chemical engineering 3. Overall capital coëfficient for heavy industry 1. (Prof. P. C. Mahalanobis's lecture to the Six-months Planning Course at the Institute of Social Studies, The Hague, 23, 24 and 25 June 1958).

Of course after, and only after, the internal needs have been satisfied and the country wants to enter the international market, excess capacity may have to be allowed for.

[2] See the latter part of footnote 1 above.

3. GENERAL DEFINITION OF SAVING

The most general, if also the most common-sense, definition of saving is the excess of income over expenditure [2]. From a generalised accounting approach, this is obtained from what is called the *income account*. The same quantity can also be arrived at from the *balance sheet* as the change [3] in net assets, i.e., the excess of net assets over the liabilities including paid-up capital.

The *concept* of saving as defined above is clear and unambiguous [4]. It holds to savings at all levels — whether the unit is a nation, or a household, or a business firm; or whether it is the government sector, or the business sector, and so on.

It is quite another thing to say that the *measurement* of saving bristles with difficulties. For then we have to contend with the problem of defining (and measuring) income and identifying consumption. The latter is not a serious problem except in the case of some borderline goods; and even there it can be overcome by establishing a convention about treating such goods either as consumption goods or as capital goods. It is with defining income that economists have been encountering serious difficulties for some time. But their discussions have at least clarified the nature of the problem involved. Without entering into any detailed discussion, we can today look back upon the question and broadly distinguish two types of approach to a definition of income: (1) Income is defined as that which goes to factors of production as *money payment* (where money payments do not enter into the picture, imputed income is to be estimated) and (2), income is taken as the value of total output [1]. The two are not incompatible with each other. Yet, they are not quite the same thing. When we want to measure *national income*, the second is the appropriate concept [2].

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[1] The unsatisfactory character of these are brought out in Chapter 3.

[2] In the case of a joint-stock company, distributed profits can be easily treated as expenditure in the sense that it is the amount paid out from the unit to another unit. In the hands of the latter, the dividendreceiving person, it is income, and may itself leave a saving . . . "Expenditure" refers expenditure on consumption of goods and services. Expenditure on acquiring capital goods is investment. Expenditure on (allowance for) capital consumption is treated differently. It is included in gross income, and therefore in gross saving. When income is taken net, it does not come in the picture.

[3] It is better to exclude valuational changes.

[4] Dr. Radice assures us that it has been always accepted by economic theorists. See E. A. Radice, *Savings in Great Britain 1922—35, An Analysis of the Causes of Variations in Savings* (O.U.P., London 1939), Chapter II titled "The Concept of Savings", p. 5. Cf. also Keynes, *General Theory*, p. 6[illegible].

The question of deducting a sum necessary for maintaining capital intact from the total factor income or from the value of total output remains common to both. It is a difficult question and perfect accuracy is unattainable. An approximate capital consumption *allowance* is what can be deducted. The problem of valuation of assets offers another difficulty. Fixed assets and goods at different stages of production change in value. What values are we to assign to these? The original value, or the current market value? This question is also tackled by more or less arbitrary accounting conventions, but elaborate corrections have to be carried out before any specific economic analysis could be made accurately. Notwithstanding all this, the merit of the second definition relating to national income stands out. It is necessary to point out that the first type of definition of income retains its usefulness in business cycle analysis and certain other micro-economic analyses [3].

It remains to reiterate here that the difficulties mentioned above do not detract from the merits of our definition of saving. It is at once simple, general in its scope, and compatible with the existing system of concepts in economic theory [1]. It is also operational in character — an operational definition meaning that it can be described exhaustively by means of a unique and definite set of operations which yield the desired result and provide a quantitative check on one another [2].

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[1] Other kinds of distinction, e.g., between net income and gross income, are possible but not relevant to the issue.

[2] In an economy where all the productive activity passes through monetary exchange, the totals on both the definitions should be expected to exactly equal. But even in such a case they do not do so at any given point of time, because while the product flow is more or less continuous, the flow of money income is discontinuous' However, in different economies there exist in different degrees, certain categories of production which are for self-consumption. It is impossible to determine the factor incomes in these cases unless we impute the values of output. Thus, for measuring national income, value-of-output definition (method) is indispensable. The money-income concept of, say, Robertson, is clearly inadequate for such purposes.

[3] Cf. Gottfried Haberler, "Income, Savings, and Investment", NBER *Studies in Income and Wealth*, Vol. II (New York, 1938), p. 164. In countries where the major part of the economy is outside the monetised sector, the largest part of the factor-income itself has to be estimated by the output-approach to income (imputed income).

4. SAVING AND CAPITAL FORMATION

We saw that for national totals, value of output defines income most adequately. We can now translate our definition of saving into terms of output as a national aggregate. Saving is income minus consumption expenditure. National income is the value of total national output. National saving is therefore the unconsumed national output.

Capital formation, often called "investment", is the addition to the stock of capital goods which include both durable equipment and inventories of goods in process of production [3]. The underlying idea is that these goods must go to make further reproduction possible. But this essential meaning of capital formation is usually impaired by the common treatment of the subject. We shall revert to this question in the discussion that presently follows.

Now, once the definition of (national) income as the value of (total) output has been adopted, saving and capital formation become necessarily equal. Throughout this discussion, saving, capital formation (investment), and income are all national totals. Further, instead of using the phrase, "value of output", we shall simply use the word "output" to refer to the same thing. And for the sake of maintaining continuity with the discussion over the big controversy that raged during the thirties, we shall use the word "investment" instead of "capital formation".

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[1] R. W. Goldsmith, *A Study of Saving in the United States* (Princeton, 1955) Vol. II, p. 12.

[2] See P. W. Bridgman, *The Logic of Modern Physics* (Macmillan, New York 1927), Chapter 1. Quoted by Goldsmith, *loc.cit.*

[3] Cf. the conceptual definition in the U.N. *Studies in Methods Series F. No. 3: Concepts and Definitions of Capital Formation* (p. 7): — "Conceptually net capital formation represents the addition to fixed capital (buildings, other construction and works, equipment and machinery) and working capital (producers' stocks ... — stocks of raw materials, semi-finished and finished goods) available for future production."

Coming back to the question of equality between saving and capital formation (investment) the Keynesian equality is very simply demonstrated with the help of the usual symbols:-

$$Y = C + I$$
$$S = Y - C$$
$$\text{Substituting } Y, \text{ we have } S = (C + I) - C$$
$$\therefore S = I$$

We stated that the equality between saving and investment follows from the total-output definition of income. This definitional character of the equality is usually stressed but its implications are not clearly stated. We shall show how it is done in two alternative cases:-

$Y = C + I$, i.e., total output consists of consumption goods and investment (capital) goods. I, investment is defined as the sum of fixed assets and circulating assets including inventory. Inventory frequently includes stocks of finished consumption goods. Now, the *unconsumed* part of C, the consumption goods, is added by an accounting convention, to the inventory. Thus the common meaning of I impairs the purity of I as capital goods. I is really $I + C_u$ where C_u is the unconsumed part of consumption goods. Without stating it explicitly in this way, such an equality is actually presented quite frequently. The most common example is the national accounting use of the equality. But occasionally theoretical economists, e.g., Harrod, also interpret the equality in this sense [1].

Alternatively, where theoretical perception is keen, the unconsumed part of C can be assumed to be matched simply by unspent cash — just as C_u is C stored, so is an equal amount, its exact equivalent cash, is in hoard. This unspent cash is not saving, but merely hoarding. In a sense, this equality between hoarding and *stock* of consumption goods (C_u) is an identity, which follows from the definition of income as the value of output. Complications arise, however, since besides the cash, or the money hoarded, the credit performing 'finance' of investment acts as a revolving fund. But this does not affect the conception of saving which is an addition to the *stock* of capital goods [1].

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[1] R. F. Harrod, *Trade Cycle — An Essay* (Oxford, 1936), p. 72; also Hawtrey, *Capital and Employment* (Longmans, London 1937), pp. 135—40. And also Haberler's interpretation on pp. 194—95 of his book (*Prosperity and Depression*, 3rd edition) discussed by us on page 10 *et seq.* below.

Now, the definitional character of the equality between S and I is clear. In fact, from the formal statement of the matter the two appear to be an identity and it has sometimes been asked why the two terms have been maintained instead of using just one [2]. We might add that while he sought to demolish much of what could be called the traditional notion about saving and investment, Keynes also retained his link with tradition by maintaining a distinction (and by implying an inequality, at least on one occasion to be mentioned presently,) between saving and investment. He shows his awareness of the commonly known fact that the acts of saving and of investment are usually performed independently by different people [3].

S=I is not an identity.

In holding this, Keynes goes as far as almost contradicting himself when he asserts that "it is . . . the level of incomes which (in conjunction with certain other factors) ensures this equality (between saving and investment)" [4]. Something is *required* to *ensure* that S=I. If we stick to the logic of Keynes' definition of saving (and of investment), only the *definition* of income as total output is sufficient to ensure the equality. But as soon as Keynes goes on to explain the *process* of capital formation [5] — a serious omission in his *General Theory* as he admitted later [6], — he lapses into a use of the terms which is more akin to traditional thinking [7].

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[1] We think this is a fair interpretation to put on Keynes' insistence on treating saving as stock and the credit providing finance as flow. See his article "Alternative Theories of the Rate of Interest" *Economic Journal*, June 1937; and again in "The 'Ex-ante' Theory of the Rate of Interest"; *E. J.*, December 1937, p. 666 ff.

[2] E.g., R. G. Hawtrey, *Capital and Employment* (London, 1937), p. 174, "they are two different names for the same thing".

[3] *General Theory*, pp. 20—21, 210. Also Keynes, in *Economic Journal*, June 1937, p. 246.

[4] J. M. Keynes, "Alternative Theories of the Rate of Interest", *Economic Journal*, June 1937, p. 249, and again p. 250.

[5] In his articles in the *Economic Journal*, June number and December number, 1937.

[6] See his review article, "The Process of Capital Formation", *Economic Journal*, September 1939.

[7] In fact, he asserts that there is nothing new in his approach except that instead of looking upon interest rate as the equaliser, he looks upon income (among other things) as the equaliser. See his article in *E.J.*, June 1937.

Haberler's mediation[1]: Professor Haberler seeks to explain "the paradox that the two things, although identically defined, are not quite the same", and advances *two* arguments for maintaining a distinction between the two terms — saving and investment. His arguments are as follows:

(1) Only aggregate national saving equals aggregate national investment just as the aggregate purchases of a commodity are equal to the aggregate sales of that commodity. But each individual's saving need not — it usually does not — equal *his* investment just as each individual's purchases need not — and usually are not — equal to *his* sales.

(2) "There is a second reason for the retention of the two terms. Although the total purchases of a commodity are equal to the total sales of that commodity, the *motives* of purchasers differ from those of sellers. In the same way, the motives for investment differ from those for saving; and the word "investment" may be used for the value of unconsumed income when the context refers to the motives of investors, while the word "savings" may be used for the same quantity when it is desired to emphasise the motives of savers"[2]. (Our italics)

Now, this difference in the motives arises because the acts of investment and saving are performed by two distinct classes of people, or people in two distinct capacities — as entrepreneurs and as consumers.

Let us quote the passage from Keynes, to which Prof. Haberler gives his interpretation:

> "Aggregate saving and aggregate investment in the senses in which I have defined them, are necessarily equal in the sense in which the aggregate purchases of anything on the market are equal to the aggregate sales. *But this does not mean that 'buying' and 'selling' are identical terms, and that the laws of supply and demand are meaningless*".[3] (*Our italics*)

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[1] Gottfried Haberler, *Prosperity and Depression — A Theoretical Analysis of Cyclical Movements*, Third Edition (United Nations, Lake Success, N.Y. 1946), pp. 194—95.

The First Edition was originally published by the League of Nations, Geneva, in 1937.

[2] *Loc. cit.*

[3] Keynes in *Economic Journal*, June 1937, p. 249.

We have mentioned that investment and saving (also buying and selling) are two aspects of the same thing, but they are *two aspects* nonetheless. The second part of the italicised sentence is important.

Keynes and the classical view: How do the laws of supply and demand become meaningful to economic theory? The laws of supply and demand are *meaningful to economic theory* because they make clear the process of supply formation and demand formation. It tells us how on the market, supply by innumerable producers and demand by innumerable consumers (and producers) are equated through the mechanism of price. We think Keynes has been led to use this analogy of the laws of supply and demand of commodities, not by accident. For he sees that in the real world innumerable savers are supplying savings to innumerable entrepreneurs for investment, the latter constituting the demand for "saving". He has been accustomed to the traditional view in this context that this supply-and-demand situation of saving and investment is equalised through the mechanism of the rate of interest. He denies this view of the rate of interest. but he does not deny the essential *situation* to the solution of which the rate of interest used to be invoked. Instead, he shows that it is the *level of income* which is the equilibrator. The traditional view of the situation was certainly at the back of his mind in looking upon saving and investment as supply and demand respectively and brought him very near to conceiving the one in financial and the other in real terms (the older view of course conceived both saving and investment in monetary terms). But he quickly reasserts that it is the supply and demand of the *same thing.* What would be called saving being at times greater or smaller than investment, is in reality the cash, the revolving fund of finance (credit) and not saving. For true saving is equal to investment *ex definitione* [1]. He comes very near to analysing the process of capital formation in terms of older notions, but in a masterly bid saves his definition of saving and yet describes the process adequately. (In particular, see his article in *Economic Journal*, December 1937.) "The investment market can become congested through shortage of cash. It can never become congested through shortage of saving. This is the most fundamental of my conclusions within this field" [1]. We must remember that Keynes viewed investment decision as the causal agent.

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[1] In the Keynesian exposition, 'finance' refers to a 'flow, a revolving fund', while 'saving' relates to a stock. See Keynes in *Economic Journal*, June 1937, pp. 247—48; also December 1937, pp. 664—66.

A strict adherence to the Keynesian definition of saving should make each individual's saving also equal to a corresponding investment elsewhere, just as each sale is at the same time a purchase of exactly the same quantity — only, it is a purchase by a different person.

The conception of saving-investment equality has provided a great instrument to national accounting. We shall have occasion to refer to it very soon.

The equality between S and I is in reality an equality in spatial dimension; it abstracts from the temporal dimension. That is to say, though S = I at any point of time, time does not enter into the picture. S = I is a formalism — a very useful formalism no doubt — but it does not by itself describe the process of capital formation [2].

It is the process, the temporal aspect of capital formation, that is sought to be described in terms of the Robertsonian period analysis and in terms of the Swedish ex-ante and ex-post concepts (S = I on the latter view being treated as an ex-post concept). The former brings the monetary factors directly into the picture, while Keynes brings it in only as a special case in his explanation of the rate of interest. He himself, however, finds it possible to translate his exposition into Robertsonian scheme [3]. There are difficulties with regard to the Swedish concept of ex-ante saving [4], though ex-ante investment is all right (— in Professor Ohlin's exposition of the concept). Professor Haberler also opines that Ohlin's theory, particularly his idea of saving schedules, needs modification [5]. It is not necessary to go into the details of these theories. It is useful to end the discussion by pointing out that despite his obvious sympathies with Robertson's treatment of the question of saving and investment, when he comes to the question of statistical application of the theoretical apparatus, Professor Haberler admits that although

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[1] *E.J.* December 1937, p. 669.

[2] This is not to say that the process cannot be consistently described while retaining the equality. Keynes has done it very well in his two articles in the June issue and in the December issue of the *Economic Journal*, already mentioned.

[3] *General Theory*, pp. 78—79.

[4] Keynes in *Economic Journal*, June 1937, p. 248n.

[5] Haberler, *op. cit.* pp. 190—91. For a pointed criticism see Prof. Hans Neisser in *Studies in Income and Wealth* (NBER, New York 1938), Vol. II, p. 172 ff.

Robertson's "terminological apparatus is extremely useful or even indispensable for a microscopic theoretical analysis, it does not lend itself to macroscopic statistical measurement . . ." [1].

S and I in national accounts: For global statistical purposes, the definition of S and I as the unconsumed output — as an identity, has great attractions. No wonder that national accounting proceeds to treat the two terms precisely in this sense. Keynesian definition enables national accounts to proceed to estimate the savings of the household sector residually. National account workers are, however, somewhat eclectic in approach, and treat 'saving' in financial terms. To them, capital formation is the formation of the nation's net physical assets, while saving constitutes its finances [2]. For them the difference between the Robertsonian period analysis and the Keynesian formalism does not matter since they count monetary income (employee compensation) and end of the periods (annually) with *overlappings*. The roughness of their estimates is explicitly admitted. However, from a theoretical point of view also, savings could be viewed as the finances for investment without losing the Keynesian purity of the conception of saving provided that the unit period chosen is sufficiently long, at the end of which the excess or the shortage of the revolving fund will have adjusted itself (in a more complicated way in the case of excess than perhaps in the case of shortage) to the investment situation. Whether the overlapping annual periods used in official national accounts take care of this, we shall not undertake to investigate in our present work.

National account researchers work with the output measures, but they constantly seek to find an independent check from the monetary side. In this context, Marschak and Lederer's pioneering efforts are commended [3]. The U.S. Department of Commerce's attempt to get a check from the Securities and Exchange Commission's estimates of personal saving is now an established practice [1].

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[1] Haberler, "National Income, Savings, and Investment", *Studies in Income and Wealth* (NBER, New York 1938), Vol. II, pp. 164—65.

[2] See Account 3 and Table V in *A System of National Accounts and Supporting Tables*, (U.N. Studies in Methods No 2. New York, 1953).

[3] Marschak and Lederer call their effort to measure the two 'Realkapitalbildung' and 'Geldkapitalbildung'. See Jakob Marschak and Walter Lederer, *Kapitalbildung* (London 1936), cited by Gottfried Haberler, "National Income, Saving, and Investment", *Studies in Income & Wealth*, Vol. II, (NBER, New York 1938), p. 165.

It is useful to paraphrase in terms of national accounts a point that has been made obvious in our discussion above: It must be noted that a *nation's* net capital formation including its net acquisition of foreign assets, if we consider the economy open, is always equal to its saving. But this equality need not — in fact, it seldom does — hold for an individual economic unit, or groups of units composing a sector of the economy. A unit or a sector can expand its stock of physical assets in excess of its own savings by drawing upon the savings of others, or it can add less than the full amount of its savings to its physical assets and transfer the remainder for capital formation in other sectors. For instance, the physical asset expansion of non-financial corporations as a whole usually exceeds the amount of its savings, i.e. its retained or undistributed profits. But somewhere else in the economy, saving must exceed to an equal extent its own sectoral capital formation.

Now, the equality between saving and capital formation can be brought out in the scheme of an accounting table (adapted from Table V of *A System of National Accounts* [2] and from another U.N. Study [3]), with slight modifications for greater logical consistency [4], which is presented on the next page. The following comments relate to that accounting table.

Since the actual depreciation cannot be easily measured, the *provision* for capital consumption (No. 1) when deducted from gross domestic capital formation (No. 3) would give net domestic fixed capital formation. The latter plus increase in stocks (item No. 4) gives the net domestic capital formation.

In a capital-lending country, the nation's aggregate saving equals

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[1] See, *National Income — 1954 Edition,* a supplement to the *Survey of Current Business,* U.S. Department of Commerce.

[2] U.N. Studies in Methods No. 2, *A System of National Accounting and Supporting Tables* (U.N. Department of Economic Affairs, Statistical Office, New York 1953), p. 23.

[3] Studies in Methods ... Series F. No. 3, *Concepts and Definitions of Capital Formation,* (New York, July 1953), p. 7.

[4] These are: (i) In respect of 2(b) and (c) where we use the term retained profits instead of undistributed profits. Table V of *A System of National Accounts, etc.* (*op. cit.*) simplifies by calling all the items just "saving".

(ii) In 3 & 4 Gross domestic fixed capital formation and increase in stocks have been separately shown as in A/C 3 of *A System of National Accounts.*

COMBINED CAPITAL AND SAVING ACCOUNT FOR AN ECONOMY

1. Provision for the consumption of fixed capital.
    - a. Private enterprises
    - b. Public corporations
    - c. Government enterprises
    - d. General government
2. Saving [1].
    - a. Saving of general government
        - I. Central government
        - II. State government
        - III. Local authorities
        - IV. Social security funds
    - b. Retained profits of public corporations
    - c. Retained profits of private enterprises
    - d. Saving of household and private non-profit institutions

Total saving plus provision for fixed capital consumption

3. Gross domestic fixed capital formation.
    - a. Private & public enterprises
        - I. Agriculture, forestry, fishing etc.
        - II. Mining & manufacturing etc.
    - b. General government
4. Increase in stocks of private & public enterprises
    - I. Agriculture, forestry, fishing, etc.
    - II. Mining & manufacturing, etc.
5. Net lending to the rest of the world [2].

Gross domestic capital formation plus net lending abroad

[1] Saving inclusive of net international transfers received.

[2] i.e., net acquisitions of foreign assets including increases in exchange reserves and other financial claims.

its net domestic capital formation plus net acquisition of foreign assets. Similarly, in a capital-borrowing country, its savings equal its net domestic capital formation minus its deficit on international account. In the above accounting schema it can be adequately expressed by just changing the sign of item number 5 — "plus" when the nation acquires foreign assets (net of foreign liabilities), and "minus" when the nation incurs net capital liabilities to foreign countries (net of its foreign assets).

5. THREE COMPONENTS OF SAVING

Related to the three major sectors of a country's economy, there are three major components of national saving. These are government saving, business saving, and household or personal saving.

Government saving refers to the budget surplus of government. Business saving refers to the retained profits of business corporations plus the savings of unincorporated enterprises. The meaning of household savings is clear enough as a concept; in national accounting practice it includes also the savings of private non-profit institutions [1].

6. GOVERNMENT AND SEMI-GOVERNMENT ENTERPRISES

In the above treatment business saving pertains to the enterprises of the private sector, and government saving only to the budgetary surplus of what is called the general government account. The latter includes the savings only of a part of the viable public entreprises sector.

The nature of these public enterprises and the classification of their savings may be discussed briefly. For the sake of clarity, let us use the term "government enterprises" to mean the same thing as public enterprises.

Government enterprises as physical productive units, are no different from the units belonging to the (private) business sector. But, from the points of view of ownership and of the motive of operation, they are quite distinct.

The public sector may be broadly classified into three distinct types, namely, departmental enterprises, limited liability companies, and public corporations [2].

The operating surpluses (or deficits) of departmental enterprises are appropriated to the general budget of the government. Any saving that may be properly attributed to them is mixed up with "government saving".

Government enterprises that are organised as limited liability companies can be easily treated — from a statistical point of view — in the same way as ordinary joint-stock enterprises, and their saving is included in business saving, where the business saving of the entire country is derived in one way or another from statistics of joint-stock companies. The limited liability companies are of two types: public limited liability companies and private limited liability companies. Government enterprises registered as public limited liability companies are semi-public in the sense that their stocks are held by government as well as private individuals or companies [1]. On the other hand, government enterprises that are registered as private limited liability companies are fully public-owned in the sense that the capital is entirely held by the government.

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[1] In national income accounts, savings of unincorporated enterprises are not shown separately but included in personal saving, the latter being arrived at residually, i.e., deducting corporate savings and govt. savings from total savings. Cf. the U.S. *National Income — 1954*.

[2] For some details, see Parmanand Prasad, *Some Economic Problems of Public Enterprises in India* (H. E. Stenfert Kroese, Leiden 1957), Chapter II. One misses in the whole book any coherent account of the finances and the disbursement of the operating surpluses.

The public corporations are in some respects a class apart [2]. Their operating surpluses and savings, if any, are neither consolidated in the general government budget nor in the limited liability company sector in the manner stated in the preceding paragraph. The U.N. *System of National Accounts* (Tables III and V), therefore, requires the income and saving of public corporations to be stated separately [3].

Conceptually, the treatment of different types of public enterprises is inconsistent. If it were possible to give separate figures of savings for each type of government enterprises [4], the economic theoretician would at least have the option of treating them as business saving, or as savings of government enterprises in a distinct category. But the difficulties of the mixed type of enterprises would still remain [5].

7. RELATIVITY OF THE IMPORTANCE OF BUSINESS SAVING

We described the importance of saving to the growth of an economy in § 1.2. We later delineated three components of saving.

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[1] Usually government holds the majority of the stock, but management is sometimes left in the hands of the previous private companies operating in the field, e.g., in India, "The Hindustan Shipyard Ltd".

[2] They are particularly so in the U.K. They are publicly controlled in the sense that the Sovereign (in some cases the President), Parliament or a Minister appoints, directly or indirectly, the whole or the majority of the board of management. Secondly, they are corporate bodies free to manage their affairs without detailed control by Parliament or any other elected body; in particular, their financial independance includes the power to borrow and to maintain their own reserves [See *National Income Statistics — Sources and Methods* (Central Statistical Office; issued by Her Majesty's Stationery Office, London 1956), p. 168]. In India also they are organised similarly. In some instances their management is entrusted to the personnel of the private companies formerly operating in the field, e.g., the two Airlines corporations —the Air-India International and the Indian Airlines Corporation.

[3] In India this is not yet shown separately in the national income statistics.

[4] On one view at least — not certainly the efficiency point of view — the whole of the operating surplus of government enterprises could be treated as the savings of those enterprises.

[5] However, they could be overcome by statistical makeshifts, if efforts are concentrated in that direction.

We now come to business saving, which is going to be the main subject-matter of our study. We should best begin by briefly but clearly stating the nature of the importance of business saving to growth.

Unlike the importance of national saving, which is absolute in the sense that time and place make no difference to the importance of saving, given the relation to capital coëfficient and population growth, the importance of business saving to growth is completely relative to time and place. So long as saving is forthcoming in the requisite quantity (and the requisite rate) it is immaterial to growth as to what sector it is coming from. The importance of business saving to growth depends upon the institutional set-up of a given country at a given time. We shall see in Chapter 4 that the relative contribution of business saving to total saving is very different in different countries. It is again different in the same country at different periods. However, we shall there see also that in India the position of business saving is highly important, its relative contribution being much higher than that in several important high-income countries. Thus in India at present, business saving *inter alia* is extremely important to the question of growth.

8. SIGNIFICANCE AND IMPERATIVENESS OF STUDY

The relativity of the importance of business saving to growth which we mentioned above, however, does not detract from its *significance* to the functioning of an economy nor, therefore, from the importance of its study.

The strategic role of business saving — more particularly, of corporate saving — in the business cycle, its connection with long-run trends in investment and employment, changes in economic functions of the securities market, and related economic problems have been recognised by economists for some time. In the high-income countries this recognition has led to quantitative studies of corporate savings and fairly good estimates are now made available in their national income accounts. But an estimate of savings of unincorporated enterprises has been made for one country only, viz., the U.S.A., by a private agency[1].

The significance of the saving of the *whole* business sector and its direct functional relation with economic growth of the low-income countries have not been sufficiently recognized. While the significance of corporate savings to the functioning of the economic system as mentioned in the previous paragraph remains important, it is the direct significance of the savings of the whole business sector to growth which is of greater importance to the low-income countries that are growth-minded in the practical sense of the term [1]. It is this aspect that has directly inspired the present work, though it is certain that once factual knowledge has been gathered, the other aspects will also be studied and analysed.

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[1] In Goldsmith, *op. cit.*

The absolute need of studying business saving [2] in its major components will become evident as we proceed with our work.

The utter dearth of reliable work in the field and the critical importance of the marginal saving propensity of the business sector to the growth of the Indian economy which we demonstrate in Chapter 7 both underline the urgency and the imperativeness of the study of business saving.

9. COMPONENTS OF BUSINESS SAVING: MAJOR SUB-DIVISIONS

Components of business saving relate to the corresponding sub-divisions of the business sector. For statistical purposes (with some economic justification also), the business sector is usually divided into two main sub-sectors [3]:

(a) Incorporated business, or, following American practice, simply "corporations" (the same would be called in England "limited liability joint-stock companies"); and

(b) unincorporated business.

For countries like India and other low-income countries where foreigners' business constitutes a substantial part of the modern business sector, it is desirable to add also (c), the foreign enterprises. The item is not included in *A System of National Accounts*. We argue out our justification of its inclusion in the next chapter, § 2.3.2 (pp. 41—42).

Accordingly, the major components of business saving are savings of corporations, and savings of unincorporated enterprises. In certain cases, that part of the savings of foreign enterprises which is not withdrawn to the metropolitan country but is retained within the country of operation, can also be called a component of the total business saving of the latter country.

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[1] For, economic science today is growth-oriented everywhere.

[2] We refer mainly to the estimational aspect of saving, but the relation between business saving and profit is also implied.

[3] The industrial classification proceeds in terms of manufacturing and non-manufacturing (trading, communications, etc.) industries.

Of these, corporate saving is relatively easier to study because of the greater availability of data. But even *its* estimate in India is utterly unreliable so far, and hardly any effort has been made to study the relation between corporate savings and corporate profits [1]. Savings of unincorporated enterprises are difficult to estimate (and to study) anywhere. In India, hardly any beginning has been made, although they occupy a major place in the total savings of the country as we shall see in Chapters 3 and 4. The role of the savings of foreign enterprises has been little studied anywhere, though in India the basis for some kind of estimates has been recently provided by the Reserve Bank of India.

The problems and sources of estimates for each of these components are indicated in the next chapter.

It is clear that the above treatment implies the equating of business with activities of the *private* business sector alone. It is admitted that with a broader interpretation, the public enterprise sector could also be subsumed under the business sector, and then savings of public enterprises would constitute a distinct component of business saving. In practice, however, our estimates have included the savings of those public enterprises that are registered as joint-stock companies and have left out those that are not (the departmental enterprises and, possibly, the public corporations).

10. IDENTIFICATION IN THE SYSTEM OF NATIONAL ACCOUNTS

As stated above, savings of foreign enterprises are not included in *A System of National Accounts*. In Table V of that publication, savings of public corporations and of private corporations are shown separately so that one can pick out the savings of private corporations for the purpose of ascertaining business saving according to the definitional framework one adopts.

Savings of unincorporated enterprises are not shown separately but included under "saving of households and private non-profit institutions" (or, "personal saving" as many official national income statements call it). This is the treatment given in the official national income statements of all countries. The reason is simply the tremendous difficulty of estimation. We suspect that the attaching of a secondary importance to the savings of unincorporated enterprises also lies at the root of the lack of a vigorous attack on the problem.

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[1] Well-known examples of such studies in the U.K. are those by Colin Clark (*National Income and Outlay*, Macmillan, London 1937, p. 255), and by Radice (op. cit.); but the most elaborate work has been done for the U.S.A. by Sergei P. Dobrovolsky, reference to which will be made repeatedly in our book.

On the income side, however, clear statements are shown separately for corporations (both private and public) and for unincorporated enterprises (vide Table III, *ibid*, p. 22). The treatment of these types of organisation is discussed in detail in the next chapter.

II. INDISPENSABILITY OF NATIONAL ACCOUNTING TOOL

In the opening section of this chapter, we said that the recent interest in the study of saving arose out of a twofold impact. There we noted only in passing that simultaneous developments in the field of national income research both facilitated and gave further impetus to the study of saving. Our later treatment of the subject (e.g., the relation of saving to capital formation, classification of components, etc.) shows how the national accounting method has become indispensable to a dependable estimate of national saving.

A correct estimate of national and sectoral savings (and incomes) is only a means to a wider end. To place the savings of the various sectors of the economy in the perspective of the total saving and the growth of the economy, as we want to do in the final analysis, would be impossible without the tool of national accounting. Today it is an indispensable tool in the hands of the economic analyst and the economic engineer alike.

CHAPTER TWO

A BRIEF SURVEY OF THE STATE OF NATIONAL INCOME RESEARCH AND INDIAN ATTEMPTS TO STUDY SAVING

WITH SOME GENERAL CONSIDERATIONS AND SOURCES RELATING TO THREE SUB-SECTORS OF THE BUSINESS SECTOR

At the end of Chapter 1 we mentioned the indispensability of national accounting tools for the study of saving. Section 1 of the present chapter begins with a very brief historical resumé of the development of this branch of economics, and then proceeds to give a survey of the major sources of information about saving in India. In section 2 some general questions of definition, particularly the question of including foreign enterprises, and the general sources for each of the sub-sectors are discussed.

1. NATIONAL INCOME RESEARCH IN INDIA

1.1 General evolution

The investigation of national income took a double step forward in several European countries and the American continent in the late thirties. Because of the need to adopt anti-depression — and later, more general anti-cyclical — measures, official agencies began to be set up to collect and disseminate systematically more and better information and to continue research in the field of national income. Simultaneously, the emphasis shifted from mere attempts to give accurate estimates of national income to attempts that sought to dissect the body economic into its various component parts and flows, such as consumer expenditure, disposable income, saving, capital formation, government revenue and expenditure, balance of payments, etc.

Thus, effort was now concentrated on examining national income in relation to the flows and counter-flows going on within — between the domestic components of national income; and without — in relation to the outside world. It has already been mentioned [1] that economic theory itself responded to the needs of the situation in the emergence of Keynes' *General Theory* which gave a new slant and a big fillip to both empirical and theoretical study of the consumption function, saving and investment functions, the rate of interest and the role of money; and, their relation to employment.

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[1] *Supra,* § 1.1.

Subsequent developments during and after the War, culminating in the evolution of a set of standardised tables and standard concepts, the continuous and systematic work of the United Nations Statistical Office, are highly significant for the developmental policies of practically every nation today. It has meant that under the spur of the need of economic development, nations hitherto neglecting national income research, are trying to make up for lost time [1].

1.2 The state of research in India

In India, private efforts began as early as 1876 [2]. But they remained mostly sporadic. Little effort was made to systematise and evolve common concepts and a unified framework. There was hardly any systematic effort to improve the statistical material.

However, quite a new departure was made by Dr. V. K. R. V. Rao during 1934 to 1937 in what can be called the first systematic and scientific study of the national income of India [3]. But unlike Western countries, India did not follow up with the double step we have referred to above.

The result is that when serious official effort was directed to this field in 1949 [4], we had not had sufficient experience in collecting some of the most basic statistical information and in working out a common conceptual framework. The great size of the country, the vastness of the population and the pre-industrial nature of the economy would in any case make the collection of such data difficult and involve a certain minimum number of years to assess and analyse the material. Thus, although the National Sample Survey and a number of other specific surveys have been undertaken and completed recently, it is hard to make up for lost time.

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[1] Aids of international agencies and national research institutes, etc. are, no doubt, of great help in relatively speedily making up for the default.

[2] By "the grand old man" of India, Dadabhoy Naoroji. For a summary of all the estimates of national income and wealth of India, see G. S. Gouri, "National Income Estimates in India 1931—49", *The Indian Economic Journal*, July 1954, p. 64. Altogether fifteen private estimates, mostly for one-year periods, are enumerated.

[3] (1) *An Essay on India's National Income, 1925—29* (George Allen & Unwin, London 1939); and especially (2) *The National Income of British India, 1931—1932* (Macmillan, London 1940).

[4] No doubt the Government of India (Ministry of Commerce and Industry) had made an estimate in 1947 for the year 1946—47, but it was just a piece-meal attempt.

The National Income Committee which was set up by the Government of India in 1949, gave in their First Report (1951) a frame of accounting tables, which indicated certain gaps, evidently with the hope that they would be filled in later. These gaps related to provision for depreciation, consumers' current expenditure, private capital formation, and, private saving. But in their Final Report (1954) they removed those tables, presumably because it appeared to them that these gaps in basic information could not be filled in with any confidence, and it was better to leave them out until more research and open discussion had taken place.

A very promising outcome of the effort is that official organisations have been created and some amount of coordination with other research organisations achieved [1], to do continuous work on national income and related fields of research. Some of their enterprising members have been working on giving some tentative estimates of consumers' expenditure, capital formation, saving, etc. As a result of these efforts, some estimates in which we are directly interested, have been officially released also. Reference to these will be made as we proceed.

2. MAJOR INDIAN ATTEMPTS TO STUDY SAVING [2]

I. The Planning Commission. One of the primary requirements of planning economic development is an accurate assessment of the magnitude as well as the rate of saving and investment. No wonder therefore that it was the Planning Commission that in their very First Five Year Plan made the first really serious attempt to assess the saving and investment in the country. Previous to that, there had been several partial and unsystematic estimates [1] and a few intelligent but casual guesses by certain U.N. and other international missions and agencies [2]. We can for all practical purposes ignore them in our discussion.

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[1] Much greater coordination is to be desired, however.

[2] The work of Dr. D. K. Rangnekar which has been just issued under the auspices of the Royal Institute of International Affairs, London, came in too late to be included in this survey. However, some of his findings have been included and commented upon in the next chapter.

The Planning Commission estimated the capital formation for the year 1950—51. But this estimate has since been improved. Our chief interest in the Commission's estimate is the *method* employed, rather than the accuracy of the estimate itself.

The Commission identified the major types of investment (capital formation), broke them down to convenient sub-classes, and then proceeded to estimate them one by one. Finally, after having thus estimated the total investment (capital formation) in the country, they tried to identify the monetary savings that supply the funds for this investment.

In their very attempt to estimate the various breakdowns of capital formation, the Commission laid bare the weaknesses and gaps in the statistical information. All subsequent estimators have primarily attempted to remove these weaknesses and to fill the gaps. Their estimates are presented in Table 1 on page 33.

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[1] Unsystematic, because almost all previous estimates had proceeded to assess the money-flow of savings and neglected the methodology of estimating the capital formation, i.e., measuring the accumulated "real" physical capital — the only effective method for estimating the investments in a country where by far the largest part of the economic activity lies outside the monetary system.

By a peculiar habit of mimetic action, our economists had been following the method which became fashionable after Dr. Coates' evidence before the Colwyn Committee (Committee on National Debt and Taxation — United Kingdom, 1927). To be fair, however, it must be stated that individual economists could not have done much better, for an estimate from the "real" side required the huge resources of a national government.

For a summary of the various attempts to estimate the monetary savings, see Wadia and Merchant, *Our Economic Problem* (Fourth Edition, Bombay, September 1954) pp. 613—14.

N.B. That our own estimates of business saving will proceed in terms of financial operations is quite a different matter. It is the estimate of a sectoral saving as distinct from national saving. Moreover, our estimates deal with that sector, besides government sector, in which monetary transactions are the most widespread.

[2] E.g., *Mobilization of Domestic Capital in Certain Countries of Asia and the Far East.* ECAFE, Bankok, 1951; ILO, *Social Background of Economic Policy,* (New Delhi 1951), etc.

II. Mukherjee and Ghosh. Messrs. M. Mukherjee and A. K. Ghosh, then members of the National Income Unit of the Ministry of Finance, Government of India, made a somewhat more thorough job of estimating the capital formation in the Indian Union for the year 1949—50 in a paper[1] submitted to the Calcutta session (1951) of the International Statistical Conference.

In this paper they also gave for the first time an estimate of what they called the investible profits of unincorporated enterprises in India for 1949—50. As we shall devote more space to this item in our next chapter, we shall give here only their estimate of capital formation and show how they tried to compare it with what they called the "visible" forms of saving, meaning thereby the identifiable monetary saving.

Their table of sectoral break-down of capital formation is reproduced below:

SECTORAL BREAK-DOWN OF CAPITAL FORMATION AT HOME: INDIA 1949—50

Sector	Rs. Crores		
	New Outlay	Maintenance[1]	Total (Gross)
Government			
1. Construction	46	11	57
2. Administrative deptts. (incl. Multi-purpose river schemes)	59	22	81
3. Railways	31	29	60
4. Other govt. enterprises	60	3	63
5. Inventory change in state trading schemes	—22	—	—22
6. Total Government	174	65	239

Table continued on next page.

[1] Maintenance corresponds to depreciation, perhaps *post hoc.*

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[1] M. Mukherjee and A. K. Ghosh, "The Pattern of Income and Expenditure in the Indian Union: A Tentative Study", *Bulletin of the International Statistical Institute*, Vol XXXIII: Part III, pp. 49—68. The first half of the paper (pp. 49—58) is devoted to the subject matter of the title. The second half (pp. 58—68) is devoted to an estimate of the capital formation in the Indian Union, 1949—50. The estimates of savings of corporations and unincorporated enterprises are in two footnotes on pp. 67, 68 respectively.

	Sector	Rs. Crores		
		New Outlay	Maintenance	Total (Gross)
	Private			
7.	Construction: Urban	107	34	141
8.	Construction: Rural	164	73	237
9.	Agriculture, animal husbundry, forestry, fishery and cottage industry	38	217	255
10.	Mining, factory establishments, small-scale industry; trade and transport	53	120	173
11.	Inventory changes	n.a.	—	n.a.
12.	Total: Private	362	444	506
13.	*Capital formation at home*	536	509	1,045
	Capital formation as a ratio of national income [1] (Rs 9,010 crores)	6 per cent	5.5 per cent	11.5 per cent

[1] Revised estimate taken from *Estimates of National Income 1948—49 to 1955—56* issued by the Central Statistical Organisation, Government of India (New Delhi, April 1957).

In addition, Mukherjee and Ghosh give an estimate of the identifiable monetary savings (they call it "savings available for capital formation") which is also reproduced below:

SAVINGS AVAILABLE FOR CAPITAL FORMATION: INDIA 1949—50

(Read, *Identifiable monetary savings available . . . etc. — H.M.*)

		(Rs crores)
1.	Surplus on current account of govt. administration	99
2.	Operating surplus of govt. enterprises (Railways, Post & Telegraph, etc.)	27
3.	Small savings (Postal, Cash and National Savings Certificates, Post Office Savings Bank Accounts, etc.	30
4.	Provident Fund contributions of Central and State Govt. employees	15
5.	Life insurance premiums	41
6.	New share-capital and increase in deposits of Co-operative Societies, etc.	18
7.	New issue of equity subscribed by the public	14
8.	(a) *Undistributed profits of corporate industry*	70
	(b) *Estimated investible profits of unincorporated enterprises* [1]	60
9.	Borrowing from abroad	23
10.	Total	397

[1] For details of the method of estimation see *infra* § 3.3.1 ff.

The total monetary saving that they identify is thus Rs 397 crores (they actually show Rs 382 — allowing for either an error of aggregation or some error of estimation in the items). They then proceed to deduct from the figure of total capital formation the items that involved no monetary transactions. For some reason, they take the total *net* capital formation of Rs 536 crores *plus* Rs 39 crores (the depreciation allowance of "Factory Establishment and Mining") as the appropriate figure from which to deduct the non-monetised investment. Their method of calculation is worked out below:

	(Rs. crores)
Total capital formation	536
Plus Depreciation allowance of "Factory and Mining"	39
Minus Non-monetised investment: (a) Rural Construction	—164
(b) Agriculture, animal husbandry, forestry, fishery, and cottage industry	— 38
Equal the amount requiring a draft on monetary saving	373

They consider this figure (which is shown by them as 374 crores) "near enough" to the figures of identifiable monetary savings "(subject to cancelling errors like inventory increases on the one side and increase in savings" such as bank deposits on the other) "to warrant confidence in our (their) estimate of capital formation" [1].

A Comment

While commending the general approach of using a check of this sort, we must guard against the temptation to all too easily producing a statistical neatness. For instance, it is not clear why Messrs. Mukherjee and Ghosh add to the figure of total net capital formation the figure of depreciation of factory establishments and mines. One is free to choose either gross capital formation on all items or net capital formation. Then the corresponding monetary item is the draft on monetary *transactions* in the former case or on monetary *saving* in the latter case. Any midway course is not permissible.

[1] M-G, *Loc. cit.*, p. 68.

As will be shown in our next chapter, these estimates of saving and capital formation are subject to very large errors. We therefore abstain from giving an improved estimate of identifiable monetary savings at this stage of our discussion. A full scrutiny of various estimates of savings of corporations and of unincorporated enterprises will be made in sections 1 and 3 of the next chapter. Weaknesses of the existing estimates of capital formation will be discussed at the end of § 2.3 (iv) and an upward revision will be made in § 3.5.

III. Taxation Enquiry Commission 1953—54. The Taxation Enquiry Commission headed by Dr. John Matthai and served by one of the ablest bodies of Members available in the country, made estimates of investment for the years 1950—51 and 1953—54. They also provided an estimate of the savings for the year 1953—54.

Even more important for our purpose is the fact that in response to the relevant terms of reference [1], the Commission made the most detailed and penetrating analysis of the post-war financial position of the private business sector (mainly corporations) chiefly on the basis of (1) the results of analysis of balance sheets and profit and loss accounts of public limited joint stock companies, (2) the data furnished directly by quite a large number of public limited companies in response to a questionnaire issued by the Commission, and (3) the data obtained from the Income-tax Department with respect to private limited companies.

In the present and subsequent chapters, we shall have occasion to draw upon these data published by the Commission.

As we shall compare the Commission's figures of capital formation with the figures of three other studies in the next section, we shall reproduce here only the Commission's estimate of savings for 1953—54. The Commission's figure of capital formation plus "net investment abroad" for that year is Rs 730 crores. The Commission indicated that they excluded investment in small enterprises and in trading.

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[1] "(2) To examine---etc.... with reference to (a) the development programme of the country and the resources required for it, ... "(3) To examine the effects of the structure and level of taxation of income on capital formation and maintenance and development of productive enterprise";

Report of the Taxation Enquiry Commission 1953—54, (Manager of Publications, Government of India, Delhi 1955) Vol. I., p. 2.

Inventory accumulation was also left out. To quote the words of the Commission, "total net investment, when these are also covered would be somewhat higher"[1].

The Commission's investment figure is matched by savings as follows:

ESTIMATES OF SAVINGS IN 1953—54

I.	*Savings of the public sector*	(Crores of Rupees)
(a)	From current revenues (Central and State)	55 (97)[1]
*(b)	Centre: Net loan receipts	10
	Treasury bills	20
	Small savings	40
	Other unfunded debt, deposits, etc.	28
*(c)	Net loan receipts	36
	Unfunded debt and deposits	19
	Sub-total	208

* Represent private savings chanelled into the public sector.

[1] Revised figure from the official *Estimates of National Income 1948—49 to 1955—56* (Delhi 1957).

II.	*Other savings of the private sector*	(Crores of Rupees)
(a)	New subcriptions to capital of companies	15
(b)	*Savings of corporate enterprises*	60 (25—27)[1]
(c)	Deposits of scheduled banks	9
(d)	Insurance companies (1952 figure)	14
(e)	Estimated increase in share capital and deposits of Cooperatives	11
(f)	Savings in rural sector invested in housing and other rural investment	160 (2)
(g)	Other private savings	253 (3)
	Sub-total	522
	Grand-total	730

(Reproduced from op. cit. vol. I, p. 138).

[1] Our estimate infra p. 52 (Table 2).
[2] This is the estimated figure of capital formation in rural areas.
[3] This figure is derived residually.

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[1] Op. cit., Vol. I, p. 139.

It can be seen that the items reading down from I to II(e) are identified monetary savings. II(f) is the non-monetised rural investment and II(g) is the residue. It is quite correct to leave the residual item where it stands. Corrections in other items disturb nothing but this residue which covers several unidentified items.

IV. Deshmukh's White Paper 1955. In April 1955, a "working paper" on capital formation in the Indian Union was jointly prepared by the Central Statistical Organisation and the National Income Unit (of which Mr. Mukherjee was still the leader) in collaboration with the Economic Wing of the Ministry of Finance, Government of India. Drawing upon the experience of all the earlier work, this paper presented a series of annual estimates of capital formation and saving in India for the years 1948—49 to 1953—54. The paper was placed before the Parliament in the summer of 1955 [1] by the then Finance Minister, Mr. C. D. Deshmukh.

This paper includes estimates of investments of small enterprises but, like the Taxation Enquiry Commission Report, excludes inventory investment.

We show below their estimates for the major types of investment and saving:

	Net fixed capital formation					Net domestic capital formation plus net lending abroad — saving	
	Private sector (amount Rs. crores)	Govt. sector (amount Rs. crores)	Total (amount Rs. crores)	Net domestic capital formation as % of national income	Net lending to the rest of the world (amount Rs. crores)	amount (Rs. crores)	Saving as % of nat. income
1948—49	292	154	446	*5.2*	—239	207	*2.4*
1949—50	332	192	524	*5.8*	— 50	474	*5.2*
1950—51	390	199	589	*6.2*	56	645	*6.7*
1951—52	461	211	672	*6.7*	—174	498	*5.0*
1952—53	441	218	659	*6.7*	74	733	*7.4*
1953—54	443	277	719	*6.8*	66	785	*7.4*

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[1] Subsequently published in the *Journal of Industry and Trade* (Ministry of Commerce and Industry, Government of India), New Delhi, September 1955.

A Summary of the estimates of national capital formation

This is a convenient place to bring together the results of the four different national estimates of capital formation and examin them carefully. Our next sub-section will be concerned with only one sector which was studied by the Reserve Bank of India. However, it is the sector with which we are directly concerned.

A summary of the different estimates is presented in Table 1 below.

Table 1. COMPARATIVE ESTIMATES OF NET DOMESTIC CAPITAL FORMATION IN INDIA, SELECTED YEARS.

(*Rupees in crores.*)

	1949—50	1949—50	1950—51			1953—54	
	M-G	D.W.P.	F.F.Y.P.	T.E.C.	D.W.P.	T.E.C.	D.W.P
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Private Investment							
1. Organised enterprises *	53	80	80a	55	57	55	61
2. Urban construction of buildings	107	57	100	90b	97	120	123
3. Rural Investment	202	170	20	140	187	160	229
4. Transport other than Railways	**	25	25	25	49c	20	29c
5. Total: Private Investment	362	332	225	310	390	355	442
6. *Public Investment*	174	192	185	185	199	305	277
7. Total net fixed domestic investment	536	524	410	495	589	660	719

* Under this heading the TEC puts all the joint stock companies. FFYP puts both large and small-scale industries. DWP puts "mining and manufacturing enterprise". M-G put "mining, factory establishments, smallscale industry and trade and transport". The groupings, therefore, are not strictly comparable.

** Not shown under this head but mostly included in no. 3.

(a) Large and Small scale industries.

(b) Urban housing.

(c) Includes investment in rural transport.

Abbreviations:

M-G stands for Mukherjee and Ghosh.
DWP stands for Deshmukh's White Paper.
FFYP stands for First Five-Year Plan.
TEC stands for Taxation Enquiry Commission 1953—54.

Year-wise, the following sets of comparison can be read off the Table:

1. 1949—50 (i) Mukherjee and Ghosh, (ii) DWP
2. 1950—51 (i) FFYP, (ii) TEC, (iii) DWP
3. 1953—54 (i) TEC, (ii) DWP

1. Reading columns (1) and (2) we find that the figures of total given by Mukherjee and Ghosh, and by DWP are quite similar. But how very different are the estimates of the breakdowns! The discrepancy between the estimates of Urban construction of buildings, and of Organised Enterprises is the most striking. The difference in the various figures for Public Investment is probably not due to estimational difference; but can more likely be accounted for by the revisions that were later made by the government figures.

2. Comparing columns (3), (4) and (5), we find large differences in the totals; the FFYP estimate is the lowest of all the estimates. It is significant, however, that the largest part of the discrepancy between the FFYP and the DWP estimates is explained by the difference in the estimates of Rural Investment. The difference between the total TEC and DWP estimates is accounted for by larger or smaller differences in almost all the breakdowns. It is worth noting that although a rather large difference of Rs 47 crores is seen under Rural Investment, a large part of it is counterbalanced by the inclusion of rural transport under breakdown number 4 by DWP and exclusion by TEC. It is not likely that the same is included by TEC under breakdown number 2.

3. A comparison of columns (6) and (7) again shows a rather large difference in the estimate of Rural Investment.

Hazardous nature of the estimates of Rural Investment

It is clear from the foregoing that the estimates of Rural Investment are extremely divergent. We will now try to discover why this is so.

Since the published Report of the TEC does not give breakdowns of Rural Investment, we shall consider only the other three estimates. It is convenient to compare them by the possible sources of error.

The divergencies in the estimates of Rural Investment stem from two sources:

(i) exclusion or inclusion of certain items; and
(ii) estimating error itself.

We can show that the difference between the estimates of FFYP and DWP 1950—51 arises out of the first type of error, and the difference between the estimates of Mukherjee-Ghosh and DWP, 1949—50, out of the second type of error. Curiously enough, at the end of their paper the authors of the DWP draw attention to the similarity of their total figure for 1949—50 to that of Mukherjee and Ghosh! It would have been more appropriate perhaps, to draw attention to the *compensating nature* of the errors!

The following breakdowns are given by DWP:

	Net investment (Amounts in Rs crores)	
	1949—50	1950—51
1. Construction	56	64
2. Improvement of land and construction of irrigation works	66	72
3. Agricultural and other implements and small-enterprises	48	51
Equal Rural Investment	170	187

(i) Only the third item is comparable to the FFYP item standing for the whole rural investment, which is titled "Agriculture and cottage and small scale industries in rural area" and amounts to Rs 20 crores. The other two items are not included by FFYP at all.

The difference of 31 crores can be explained almost entirely by the exclusion of "small scale industries" by the FFYP from the item of "Rural Investment" and its inclusion in the first item of "Organised enterprises (see Table 1). It may be noted that the DWP includes "small scale industries" in "Rural investment" and excludes it from "Organised enterprises". The difference in the estimates as such appears to be small.

(ii) Mukherjee and Ghosh give the following breakdowns which may be compared with the corresponding DWP-estimates to note the type of difference that arises out of estimating error:

	Net outlay, 1949—50 (Rs. crores)	
	M-G	DWP[1]
1. Construction	164	(56)
2. Improvement of land etc.	not given	(66)
3. Agriculture, animal husbandry, forestry, fishery and cottage industry	38	(48)
Equal Rural Investment	202	(170)

[1] Items for DWP are only roughly comparable. Figures are therefore indicated within brackets.

It can be easily seen that there are genuine differences in the *estimates*, construction exceeding the DWP estimate by 108 crores. Let us leave out item 2, which is not given by Mukherjee & Ghosh. Item 3 is comparable, and if anything, includes more items, e.g., animal husbandry and fishery. Even then M-G estimate falls short by 10 crores.

It is no comfort to point out that this gap between two estimates using the same data from the National Sample Survey is nothing compared to the howling gap between these estimates on the one hand and on the other hand the estimate of rural investments made by the All-India Rural Credit Survey of the Reserve Bank of India.

Systematising the muddled account of the estimate of capital formation given by the AIRCS[1], the picture for the reference period corresponding roughly to 1950—51 is as follows:

CAPITAL FORMATION IN THE RURAL AREAS FOR ALL-INDIA. (Rs. crores)

	Gross	Repair and maintenance	Net
1. Capital expenditure in agriculture *excluding purchase of land and livestock*	300	50	250
2. Expenditure on residential houses and other buildings	250	80	170
3. Capital exp. in non-farm business	100	(50) *	(50) *
Total	650	180	(470)

* The Survey Report fails to give any net figure for this item. We have made this rather liberal allowance for depreciation.

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[1] All-India Rural Credit Survey, *Report of the Committee of Direction, Volume I, The Survey Report*, (Bombay 1957), § 12.11. Also in the *Summary* published earlier (Bombay 1955), § 12.11.

Thus we see that for the same year, while TEC and DWP estimate the extent of net rural investment at Rs 140 and 187 crores respectively, the AIRCS places it at Rs 470 crores. In this respect, the AIRC Survey could have been a much more useful check on the National Sample Survey had they used a uniform approach with respect to definitions, and more particularly, with respect to the items included in each category. It is suspected that the latter, as well as valuational procedures, must have differed greatly. It is further remarkable how close the M-G estimate and the RBI estimate of rural construction are. The difference of one year in the reference period is perhaps not too serious. And yet there seems to have been inadequate attention to this fact when the authors of DWP estimated the item at only one-third of the figure.

Let us now pass on to a description of our fifth important source.

V. Reserve Bank of India study of company finances. Under the able guidance of Dr. N. S. R. Sastry, the Department of Research and Statistics of the Reserve Bank of India has been making a very thorough analysis of the post-war finances of Indian joint stock companies from the balance sheets of some 750 units excluding financial companies. True, in its published reports it has made no attempt to generalise its findings for the whole economy, nor even for the whole company sector. But the results of the analysis are of great help in estimating company profits, company saving, etc., for the whole company sector. Together with the TEC analysis of company finances, the RBI study has been largely drawn upon in our chapters on the estimates of corporate saving, and the profitability of business.

The study is continuing on an annual basis using the same sample, the number of units in the sample varying only slightly from year to year. Five instalments have already been published, beginning with August 1954[1]. The samples cover only public limited companies registered in India and having a paid-up capital of not less than Rs 500,000 each. The study excludes financial companies, all private limited com-

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[1] These studies relate to annual periods from 1950 on. The following instalments have been published, with the number of identical companies noted against them:

August 1954	. . . 757 companies	January 1957	. . . 751 companies
July 1955	. . . 746 companies	September 1957	. . . 750 companies
April 1956	. . . 771 companies		

panies and branches of foreign companies [1]. The total paid-up capital of about 750 companies included in the study represents about 66 percent of the total paid-up capital of public limited companies in the sectors covered. In most of the principal industries the sample coverage by paid-up capital exceeds 70 percent [2]. If we take the entire corporate sector which includes both public limited companies and private limited companies, excluding financial companies, the sample covers some 53 percent of the total *business* [3] (measured by total capital employed) of the corporate sector excluding financial companies.

This shows that although a *relatively small number* of companies have been covered (750 out of some 29,000 companies), the proportion of business covered in the sample is very high. It is also clear that the sample covers only large — indeed some of the largest — companies.

Quite a large number of industrial breakdowns are provided.

The full significance of these details will unfold itself in the chapters giving the estimates of saving and discussing the profitability of business.

3. GENERAL CONSIDERATIONS AND STATISTICAL SOURCES FOR THE SUB-SECTORS

We have briefly described the important Indian sources relating to the entire field of saving (and capital formation) in section 2 above, including Indian sources that deal specifically with business savings (sub-sections iii & v). We now propose to deal with the business sector in a somewhat systematic manner, dealing with each of the three sub-sectors mentioned in § 1.9.

3.1 CORPORATIONS

Unless otherwise mentioned, by "corporations" we refer (throughout this study) to corporations belonging to the private sector. These include both private limited companies and public limited companies. Public corporations, which are statutory bodies set up by government or public authorities are a separate category, and will not be discussed here.

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[1] Non-profit associations and companies limited by guarantee are also excluded. But these form a negligible proportion of the total business.

[2] Vide *RBI Bulletin*, September 1957, p. 839.

[3] The concept as well as the basis of estimate is discussed fully in Chapter 3 and in Appendix I.

3.1d Sources of corporation data: general

(i) A complete list of corporations, with figures of paid-up capital, description of business etc., is available because of registration requirements, in practically every country.

(ii) Corporations are obliged to maintain their balance sheets and profit and loss accounts. They are also obliged to publish much of the information periodically.

Information is also available from stock exchange manuals and investment yearbooks. Competent analyses of company accounts are in some instances published in financial and other journals as regular features.

(iii) In addition, income tax assessment data are fairly complete in many countries, at least in the coverage of industry groups, though reliability varies from country to country.

Thus it is possible to compile the figures relating to net profits, distributed profits, and retained profits. It is *possible*, but the task is by no means easy. Apart from the varying reliability of this source in different countries, there are many well known factors[1] which lead to either under-estimated or over-estimated figures for capital, profit, dividends and saving. Nevertheless, the field has been comparatively better explored and uniformity in practices has been achieved to a very large extent.

For broad national aggregates, income-tax figures are used, with more or less elaborate adjustments and checks from other sources. The U.S. Department of Commerce relies mainly on the annual tabulations of corporate income tax by the Internal Revenue Service which have gone far toward standardisation of accounting practice over a long period of time[2]. Improvements with regard to corrections for time lags are introduced from the joint survey data of two other official agencies, viz., the Securities and Exchange Commission and the Federal Trade Commission [1].

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[1] E.g., issue of bonus shares, issue of new shares at a fraction of their market value or at several times the nominal value, interlocking of company share holdings, managing agency remuneration, paying up uncalled capital out of profits, etc.

[2] U.S. Department of Commerce, *National Income 1954 Edition.* A Supplement to the *Survey of Current Business* (U.S. Government Printing Office, Washington 1954), p. 92.

The United Kingdom Blue Book on National Income also bases its estimates of corporate profits and savings on the tax assessment by Inland Revenue, but it leans quite heavily on the analysis of company accounts published in *The Economist* and *The Financial Times* as the only sources from which a division between various categories of dividends can be obtained [2].

3.1.2 Sources of corporation data: India

In India, income tax return data cannot be as useful as in the United Kingdom, not to speak of those in the United States. Apart from certain aspects of the Income Tax Act such as the complete omission of agricultural incomes (which do not at any rate affect the problem of collating corporate income and savings data) and the omission of all incomes below the minimum exemption, large scale evasion, false returns, lags between tax accruing and tax paid, presentation of income assessed to tax rather than total income [3], the practice of carrying arrears of assessments from one year to another [4], etc. reduce the usefulness and reliability of the data collected by the income tax authorities. However, for national figures this has so far been the only source to go by. It is expected that new reforms in income-tax law and collection procedures that are now being carried out will make this source of data more reliable in the future. But meanwhile, national income researchers must work with existing data, introducing as much improvement as possible into statistical processing and into collection of data from supplementary sources.

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[1] For detailed sources and procedure of estimating corporate profits see *ibid*, Part III, Section 5.

[2] Vide Central Statistical Organisation, *National Income Statistics-Sources and Methods* (Her Majesty's Stationery Office, London 1956), pp. 163—4. For sources of profit and method of estimation, definitions etc., the whole of Chapter VI, particularly sections 3 and 4.

[3] Cf., *Final Report of the National Income Committee February 1954* (Issued by the Department of Economic Affairs: Ministry of Finance Government of India), See 3.33, p. 134.

[4] The limitation of income tax statistics in this respect is best indicated in the following quotation taken from *The All India Income-tax Revenue Statistics for the Year, 1953—54*: "Statistics contained in this volume are in respect of assessments completed in the financial year 1953—54. They do not, however, represent the results of all assessments for that year since a fairly large number of assessments for the earlier years, which in some cases include two or more assessments on the same assessee were completed during the year while many unfinished cases of that year, were carried over to the next year". (The quotation has been very kindly communicated to us by Dr. N. S. R. Sastry).

Supplementary study of company finances with respect to income and saving is possible with the aid of large sample data for the post-war years thanks to the Taxation Enquiry Commission Report and to the Reserve Bank of India study mentioned earlier. While their coverage is partial, the data are more complete, detailed and reliable, and therefore will form the main basis of our estimate of corporate saving in the next chapter.

3.2 FOREIGN ENTERPRISES

3.2.1 Justification of inclusion

The framework of national income accounts has been developed in high-income countries where investment and enterprise from foreign countries are either insignificant today, or at the most, investment and enterprise from foreign countries play a role which is subordinate to their own investment and enterprising activities. However, this is not true of most of the low-income countries. In India, for instance, some 30 per cent of the organised business sector is covered by foreign business.

It is quite clear why no special place in the general framework of national accounting (represented, for instance, by the U.N. *System of National Accounts*) has been assigned to the income (and saving) generated by foreign enterprise. It should be equally clear why the income and saving generated by foreign enterprises should find a place in the system of national accounts of low-income countries.

Two arguments might be advanced against the specific inclusion of foreign enterprise — (i) that wages and salaries (and profit, interest, rent, if any) accruing to nationals is included anyhow, and therefore, there is no special need to show them as originating in a foreign sector within the country in a separate breakdown. And (ii), that the legal title to the profits retained from foreigners' business (saving) is held by foreign nationals and therefore it cannot be considered as a saving of the country.

With regard to argument (i), we would say that it is true that the national income total is not disturbed even if a separate breakdown of foreign enterprises is not shown. But there is a definite advantage in showing the relative positions of and the relative advances over time made by the foreign and national sectors.

With regard to (ii), the argument is particularly objectionable. It is a clear case of how a legalistic view obstructs the correct appraisal of the reality of the *economic process*. It is well known, as will be shown in our estimates of savings by foreign enterprises in India, that in the case of foreign enterprises, although the title to the retained profits (together with the title to the investment) remains with foreigners, actually a part of the retained profits is re-invested within the country. Therefore, a separate breakdown would provide an insight into the working of this substantial sector.

3.2.2 Source

The sources are not very perfect. In many countries private research was begun mainly to determine investments *made abroad* rather than investments *from* abroad. Later on, the work was taken up more systematically by the central banks. Instances are the U.K., Canada, U.S.A., etc.

In India, the Reserve Bank of India completed its first Census of Foreign Liabilities and Assets in 1951. Two further censuses have been conducted since[1]. Although the census is conducted primarily to determine the balance of payments position, it supplies considerable — and the only — information about longterm business investments by foreigners.

These have been analysed and systematised in our chapters on the estimate of savings, and on the profitability of business.

3.3 UNINCORPORATED ENTERPRISES

3.3.1. Definition and general treatment

Unincorporated business is by nature a residual term. We can first think of a broad sector of business enterprises the basic characteristic of which is to produce goods and services for sale at a price intended to yield a surplus after covering the cost of production[1]. In short, production for profit is the basic attribute. Then, since corporations can be directly identified as a group with certain special characteristics[2], they are considered as one sub-sector.

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[1] News of the publication of the fourth census report have appeared as we go to press.

The other, i.e., the unincorporated enterprises, is the residue. They are very difficult to identify statistically. In general the proprietors of such enterprises are self-employed persons whose income constitutes a borderline case combining the elements of both labour income and profit (entrepreneurial) income.

There is no way of overcoming the essential ambiguity of this item except by statistical make-shifts[3]. Different countries follow different practices in classifying this item. The U.S. Department of Commerce, for instance, calls this item "Income from unincorporated enterprises".

[1] Since we have treated business as one sector, of which corporations and unincorporated enterprises are but sub-sectors, we have used this broad definition of business or enterprise. Contrast the definition of enterprise used in the U.N. *System of National Accounts*. "Enterprises include all firms, organizations and institutions which produce goods and services for sale at a price intended approximately to cover the cost of production" — (Studies in Method No. 2 — ST./STAT SER. F/No. 2, New York, 1953), p. 11. Here the generality of business has been conceptually sacrificed to meet the fact that most of these enterprises are marginal firms, according to the definition given for instance, by Steindl, which can be easily treated as a special case. That the motive of self-employment and of covering just the cost of production operates strongly in the case of a very large number of unincorporated enterprises is not denied. The group of national income experts appointed by the U.N. Secretary-General seem to have oscillated rather violently between emphasising the consumer aspect here and again the entrepreneurial aspect there in the presentation of their accounts (See *infra*, p. 45). A general definition, then, loses much of its sense.

[2] Apart from statistical convenience, the distinct identification of corporations is valuable for economic analysis in so far as the main weight in this sub-sector is carried by large enterprises with substantial capital, a relatively high degree of permanence and a fairly elaborate organisation. This is so notwithstanding the fact that the sub-sector includes a large number of small enterprises, distinguishable only by legal form from unincorporated enterprises or sole traders and partnerships.

[3] If, e.g., sufficiently reliable data of labour income from a properly stratified sample could be collected, the imputed labour income could be deducted from the income of unincorporated enterprises to arrive at an approximate figure that could be attributed to profit income proper. It must be noted, however, that first of all, one must arrive at a reliable estimate of the total income of the unincorporated enterprises.

The official national income statistics of the U.K. on the other hand places it under the head "Income from self-employment".

The U.N. *System of National Accounts* puts the item as "Income from farms, professions and other unincorporated enterprises". Usually these three breakdowns are made available in national income statistics [1]. The advantage is that if these three breakdowns are given, the economist can choose the items he wants to investigate or compare.

3.3.2 General Sources

The sources of these three breakdowns are various. Usually farm income estimates are made from statistics collected by the Department of Agriculture in countries where these are complete. Professional income may be estimated from income tax returns. In some cases it is better derived by means of the census figure of occupational distribution multiplied by the average income per earner obtained by sample survey. The U.S. State Department follows this latter course while the former is followed by the Central Statistical Organisation of the U.K. Business income of this sector is estimated from the most fragmentary sources of all. In the U.K., they rely solely on Inland Revenue data, with the concomitant errors of omission. In the U.S., they use certain special tabulations of the Internal Revenue Service carried out for certain specific years which are used as benchmarks. Then two methods are employed: (i) Number of active proprietors multiplied by an estimate of their average net income; (ii) Gross receipts multiplied by a profit ratio (ratio of net income to receipts) [2].

As stated earlier, it is a good thing that these three breakdowns are given. This would make some kind of a rough international comparison between high-income and low-income countries possible For instance, in most low-income countries (e.g., India) farm income would correspond to income from agriculture which can hardly be described as a *business*.

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[1] Sometimes a very large number of industrywise breakdowns are also provided. See exhibits 1 and 2, U.S. Department of Commerce, *op. cit.* pp. 76—77.

The three breakdowns are named in the U.S. Statistics as "Farms, Professional Services, and, Business". *Loc. cit.* In the U.K., "Income of farmers, professional earning, and income of other sole traders and partnerships" — C.S.O., London 1956, *op. cit.*, p. 93.

[2] *Loc. cit.*

Agriculture in these countries is essentially a way of life and is not conducted on business lines — being mostly for self-consumption. The analogues of the two other items are to be found, however. Thus, one can select the item one is choosing to compare. It will be seen that in our estimates of saving in India (next chapter), we have considered only the third item, viz., unincorporated business, as relevant to the sector.

We have described in some detail the nature and source of estimates of the *income* of this sector in order to show the difficulties involved. It is understandable, then, why there are no official national income statistics for the *savings* of this sector.

The U.N. *System of National Accounts* makes rather drastic assumptions about the income of this sector: In account No. 2 [1], "the entire net income of unincorporated enterprises . . . is assumed to be withdrawn from the business system by the owners of these enterprises in their capacity as consumers" [2]. On the other hand, in Table III (National income by type of organisation) [3] the entire income of this sector is listed after the operating surplus of corporations as "operating surplus of unincorporated enterprises".

In plain words, it means that in the first instance the income is treated as employee compensation. Indeed, in account 2 the item is listed immediately after the item "Compensation of employees". Savings of unincorporated enterprises, if any, would then be included, like the savings from compensation to employees, in the item "Saving of households" ("and non-profit institutions" — see Table V., op. cit. p. 23).

Quite contrarily in the second instance, the income of the unincorporated enterprises is treated as entrepreneurial (profit) income proper; but any saving from this income is also included in the "Saving of households".

The U.N. *System of National Accounts* thus perpetuates the ambiguity of which we spoke earlier.

The only impressive effort made to estimate the savings of this sector is that by Raymond Goldsmith, under the programme of a private agency, in his monumental Study of Saving in the United States. Even here, the neat figures for savings of unincorporated enterprises are the least satisfactory of all; due, as Goldsmith himself points out, to "our scandalous ignorance of the financial situation and history of unincorporated business" [1].

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[1] *Op. cit.* p. 18.

[2] *Op. cit.* p. 15.

[3] *Op. cit.* p. 22. This means that here it is treated as profit income, obviously.

Harold Lydall calls attention to "the most appalling lack of direct information" [2]. In particular, he points out the serious defect that "No data are available on net transformations (over the 53 years-H.M.) of unincorporated business into corporations" [3].

3.3.3 Indian sources

For India, Mukherjee and Ghosh made an attempt in the paper mentioned earlier, to estimate the income and savings of this sector — unincorporated business proper (i.e., excluding farms and professions) — for one year only. The source of income data which they used is income tax assessment. An estimate of the average family expenditure of this group was made, probably from National Sample Survey data, to arrive at the saving figure. Some details of the procedure including its merits and drawbacks will be commented on when we come to make our own estimate for a number of years.

The main source of studying the income and saving of unincorporated enterprises, however, is the *Report of the National Income Committee.* We have used the *First Five Year Plan* and the *Census of Manufactures* as auxiliary sources.

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[1] R. W. Goldsmith, *A Study of Saving in the United States* Vol. I (Princeton 1955), p. 103.

[2] *The Review of Economics and Statistics,* August 1956, p. 341.

[3] *Ibid.*

CHAPTER THREE

THE ESTIMATE OF BUSINESS SAVING

In the light of the nature of statistical material relating to the savings of corporate, foreign and unincorporated sectors of business set out in § 2.3, we shall now try to hew out a practical course and present our estimates of the saving of these sub-sectors for India during the post-war period.

1. CORPORATIONS

1.0 Methods of estimation

Two principial methods of estimating the national total saving of corporations can be applied to the available Indian data. Let us call these the total profit minus total dividend method and the sample method. The latter is applicable to the post-war period only, while the former, if properly tackled, can yield estimates dating back to a far earlier period. Although we shall present an estimate of savings for the post-war period only, we give below a brief outline of both the methods so that the hazards involved are clearly understood.

1.1 Total profit minus total dividend method

As stated above, this method is particularly suited to the purpose of obtaining a long-period estimate. National total figures of company income as assessed by the Income Tax Department are available from as early as the eighties of the last century, if not earlier [1]. These are shown after deducting a depreciation allowance. That this allowance is often not substantially different from the company practices with regard to this allowance, has been demonstrated by the Taxation Enquiry Commission 1953—54, at least for the period under their investigation [2].

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[1] Vide T.E.C. Report, Vol. II, p. 10. Of course, it is not suggested that the use of the data is easy — problem of geographical coverage, lack of uniformities of practice etc., are there. But it may not be too difficult to use the data, say, after the First World War onward.

[2] Vol. I, p. 135. This is particularly true for assets acquired prior to 1946. For assets acquired in or after 1946, however, depreciation allowed by the Income Tax Department is much higher than that provided by companies. See *ibid*, Statement (relating to Ch. VII) XXVII.

Deducting the income-tax and super-tax charges we obtain the profit after tax. This is easy.

Since assessment in a given year is usually made for the preceding year, the use of a year's lag to the income before tax may be more appropriate. This would be so if the Income Tax Department completed its work each year. However, there is evidence that the Indian Income Tax Department has often been in arrears. Therefore the accuracy of the *annual* figure is not guaranteed anyway.

Nevertheless, inaccuracies arising out of this consideration would not affect a long-period total.

There is another source of inaccuracy which may be serious. It relates to the question of tax evasion. It is held to be very widespread in India and involves exceptionally large sums [1]. Unlike the inaccuracies arising out of arrears in assessment mentioned above, the inaccuracies arising out of tax-evasion will not cancel out over the long run! However, there are the various regular and special commissions to investigate the question of evasion [2].

If evasions could be roughly estimated, then the average income of a number of years together could also be correspondingly corrected [3].

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[1] Vide Income-tax Investigation Commissions' findings as reported in *T.E.C. Report* Vol. II, p. 196; also remarks of N. Kaldor, *Indian Tax Reform-Report of a Survey* (Delhi, 1956?), p. 105. These relate to all income taxes. The special campaign of Shri Mahavir Tyagi, the then Minister of State for Finance, for voluntary declaration of concealed income resulted in the declaration of some 200 crores of rupees by the industrialists. These of course relate to concealed income of the war and immediate post-war periods.

[2] Three agencies are mentioned by the TEC, *loc. cit.* These are: (1) Income-tax Investigation Commission; (2) Central Commissioners of Income-tax at Bombay and Calcutta; (3) Special Circles. The work of the latter two is coordinated through a Director of Inspection who functions directly under the Central Board of Revenue.

[3] Such concealed profits may be spent only partly. The bulk has to be saved. However, hoarding being impossible for any length of time (measures like demonetisation of high-denomination currency notes are quite effective). It is known that quite a sizable amount was diverted outside the country and invested in some of the Southeast Asian countries through the camouflage of high price of imported goods etc. — Some such funds are reported to have been repatriated recently (Rs. 45 crores from Ceylon, Malaya, Burma, etc, during 1948—53). See RBI, *Survey of India's Foreign Liabilities and Assets as on 31st December 1953*, (Bombay 1955), p. 83. Further, gold smuggling into the country is often financed by the mechanism of undervaluation of private export invoices and overvaluation of private import invoices. An interesting account is given by Dr. D. K. Rangnekar in his *Poverty*

It is not suggested that the task is easy; but it will have to be faced in any attempt to estimate the total profits, whatever the method.

We have thus far indicated how a workable figure of total profit after tax can be obtained.

The next step, viz., that of deducting the total dividend, is more difficult. Direct figures of total dividend are not available. Of course, one can attempt to add up the dividend figure of each company for each year. But while it is theoretically conceivable, it is practically well nigh impossible, even if we ignored the various difficulties with regard to the application of the relevant percentage to the relevant paid-up capital.

The figures of total dividend have therefore to be *estimated.* This can be done by two methods: (1) An almost direct method of estimation would be to obtain the figures for a suitable sample of companies and then to convert the same into a total figure by the application of an appropriate raising ratio, viz., the ratio these companies bear to the total company sector. This is both feasible and practical. Only, if the analysis of a sample number of company balance sheets is made and its proportion to the total company sector known, there will be no need to take recourse to the profit minus dividend method. The amount of retained profits could be calculated from the same balance sheets and then it will be much simpler to use the raising ratio and directly convert the sample figure of retained profits into total retention of the entire company sector.

As noted earlier, this direct method of stepping up the figures of savings of sample companies applies only to the post-war years, for which it is not necessary to estimate the total dividends. For earlier years, suitable sample studies do not exist. And if they existed, there would be no need to resort to the profit-minus-dividend method of estimating company savings.

Thus we are essentially considering a case for which balance sheet figures of sample companies are not available. The sample method of estimating total dividend is thus precluded in this context.

and Capital Development in India (Royal Institute of International Affairs & O.U.P., London, 1958) pp. 220—23. He estimates that something like Rs. 40 crores were annually smuggled in this way during the immediate post-war years. His estimate places the undisclosed holdings of international assets as high as Rs 49 crores and 67 crores for the years 1950—51 and 1951—52 respectively. *Loc. cit.* p. 223.

(2) The second method (of estimating total annual dividends over a long period) would be to prepare a properly weighted average dividend rate for each year (for practically as many years as one wants) from a suitable number of sample companies and then to apply these rates to the total paid-up capital of all joint-stock companies which is readily available from statistics of joint-stock companies. We can thus obtain fairly accurate annual estimates of total dividend.

We have noted, however, that the accuracy of the annual figures of total profit is not guaranteed, so that by the total profit minus total dividend method we may not get accurate annual estimates of company saving, but we can get a fairly accurate estimate of savings over a long period as a whole.

1.2 The sample method

As has been already indicated, the sample method consists in accurately ascertaining the ratio which the sample number of companies bears to the total company sector. If the sample is large and *representative*, then the ratio can be applied to the figure of total retained profit of the sample companies (read off their balance sheets) to arrive at the figure of the total saving of the entire company sector.

The first limitation of this method is of course the number of years for which sample data are available or for which a sample survey could be carried out. Fortunately, thanks to the work of the T.E.C. and the R.B.I., we have sample data available from 1946 onward. This means that although we cannot go back far enough, we can at least obtain valuable results for our analysis of business saving for the last 10 years.

It must not be supposed, however, that the limitation of the period is the only drawback of the method. There are at least three other important considerations which may distort the result: (1) the representative character of the sample; (2) the criterion chosen for the determination of the proportion of the company sector covered by the sample, and (3), the accuracy of the proportion itself. These are dicussed in § 3.1.3 below, where we present some estimates of the total company savings for the post-war period with the help of the sample method.

1.3 Estimate of total corporate saving, 1946—55

We now come to the actual course of estimation. Experimental estimates for the years 1946—55 are worked out in Table 2 (page 52) on the basis of T.E.C. and R.B.I. sample figures of retained profits.

1.3.1 Two comments

(1) First, a comment on the representative character of the samples. Clearly, these samples comprise some of the largest companies, drawn entirely from the public limited companies.

These samples of 492 and 750 companies out of a total numbering some 20 to 30 thousand, cover some 30 to 40 percent of the total paid-up capital of all companies. These samples may therefore be considered representative not of all companies, but of the largest and perhaps by the same token — though not necessarily — of the most organised companies only. Further, these samples are drawn chiefly from manufacturing industries.

If we accept the usual presumption that larger companies follow a higher retention policy than do the smaller companies, and also that manufacturing firms follow a higher retention practice than non-manufacturing firms, then our estimate would be an over-estimate to the extent to which this holds true for India. Analysis of profit retention by size classes has not been made for India. Therefore the error involved in this respect is of an unknown degree. Of non-manufacturing companies, the rates of profit retention are known for Trading, Plantations, Coal Mining and Shipping. But these are included in the RBI sample. The rates for the most important group of non-manufacturing companies, viz., financial companies, are not known. We shall return to this question soon.

(2) Our second comment relates to the criterion of proportion and the actual proportions chosen.

In estimate I the criterion of paid-up capital has been used straightaway without any corrections. Though the sample companies excluded financial companies like banks, insurance and investment companies, these have not been excluded from the total from which the proportions have been derived.

Paid-up capital is, however, an inadequate, and in certain cases,

Table 2. EXPERIMENTAL ESTIMATES OF PROFITS RETAINED BY INDIAN COMPANIES, 1946—55

Year	Sample & No. of companies	Retained profits of sample companies (Rs crores)	Proportion of paid-up capital of sample companies to total paid-up capital of all companies	*Estimate I* Retained profits of all companies (Rs crores)	*Estimate II* Retained profits of all companies excluding financial companies (Rs crores)	*Estimate III* (Estimate II raised to include the savings of financial companies)	
						(a) Assuming half the rate of retention (Rs crores)	(b) Assuming equal rate of retention (Rs crores)
		(1)	(2)	(3)	(4)	(5a)	(5b)
1946–47	TEC(492)	12.29	.355	34.62	30.73	33.02	35.32
1947–48	,,	9.29	.328	28.32	23.23	24.96	26.70
1948–49	,,	16.08	.338	47.40	40.13	43.13	46.13
1949–50	,,	4.51	.312	14.50	11.28	12.17	12.97
1950–51	RBI(750)	14.80	.430	34.42	26.57	28.55	30.54
1951–52	,,	24.56	.400	61.40	43.34	46.58	49.82
1952–53	,,	6.57	.390	16.85	12.40	13.32	14.25
1953–54	,,	12.53	.413	30.34	23.64	25.40	27.17
1954–55	,,	16.58	.402	41.24	31.28	33.61	35.95
1955–56	,,	27.33	.401	68.15	51.57	55.42	59.28

Sources & methods: Col. (1) TEC & RBI, *op. cit.*; (2) *Ibid* & Stat. Abs.; (3) Col. 1 stepped up with col. 2; (4) Col. 1 stepped up with flat ratios of 40% and 53% respectively for TEC and RBI samples. The basis of these ratios is briefly mentioned in the text and worked out in detail in Appendix I. (5b) Col. 4 is found to represent the savings of 85% of all companies including financial companies by paid-up capital for 1951—2. (Vide TEC Report Vol. I, Statement II, and Stat. Abs.). Col 4 is thus raised to col. 5b. 5a is then easily determined. However, the figures presented here are slightly lower than that yielded by the raising ratio $^{100}/_{85}$. The explanation and extent of the underestimate is given in Appendix II.

even misleading, criterion of size. The sample companies are all public limited companies. The relation between their scale of operation and their paid-up capital is known to be different from that between the scale of operation of the private limited companies (it will be borne in mind that the entire company sector consists of public limited companies and private limited companies) and their paid-up capital. Compared to the public limited companies, the size of business of the private limited companies is over-estimated by the criterion of paid-up capital [1]. It is in this respect that a greater refinement has been introduced in obtaining the proportions for estimate II.

Details of the procedure and justification of arriving at the proportions have been given in the appendix. Briefly, total capital employed (equals the value of total net assets) instead of paid-up capital, has been chosen as the criterion of size. Financial companies have been left out in estimate II since the proportions used related to all companies registered in India excluding financial companies.

1.3.2 The question of financial companies

Since what we are trying to measure is the saving and not the capital formation, exclusion of financial companies is not justified. Estimate III has therefore been worked out by making corrections for the sums of retained profits attributable to the financial companies. To meet the common presumption [2] that the manufacturing companies retain a higher proportion of their profit than do other companies, we have allowed for a rate which is only half that of the sample companies as the lower limit, and an equal rate as the upper limit.

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[1] The extent of the over-estimate can be easily exaggerated. As will be seen from the appendix, the ratios of the businesses of public limited companies and of private limited companies to total business are by different criteria as follows:

(i) By paid up capital	73 : 27.
(ii) By total capital employed	80 : 20.

It is shown in Table 2 that the influence of these proportions on the absolute magnitude of saving is generally not too large for most of the years, if we compare Cols. 2 and 5b.

[2] Not always supported by facts. Preliminary calculations at the Central Bureau of Statistics of the Netherlands have shown that the average rate of retention by banks and insurance companies has been considerably higher than that by manufacturing industry excluding oil refining in that country during 1948—55. During 1923—32, in the United States also the rate of profit retention by financial corporations was higher than that by manufacturing corporations. See J. Ellwood Amos, *The Economics of Corporate Saving* (Urbana, University of Illinois Press, 1937), p. 44.

Estimate III (a) could thus be accepted as a workable estimate. However, in common with estimate II, it suffers from the defect that the proportion for one single year has been used to get the estimate of all the years. III (b) also provides a comparison with Estimate I.

1.4 Comparison with available estimates of company savings

Now, if we compare the available estimates of savings (retained profits) of corporations with our estimates (see Table 3 below), we find that the former are mostly over-estimates by very large margins, except Rangnekar's estimate for 1951—52.

Table 3. CORPORATE SAVINGS OF INDIA AS ESTIMATED BY DIFFERENT AUTHORITIES, FOR THE YEARS AVAILABLE

(*Amounts in Rs crores*)

Estimating authority / Year	1948–49	1949–50	1950–51	1951–52	1953–54
1. Mukherjee & Ghosh (M-G)	..	69	..	..	..
2. T.E.C.	..	..	..	..	60
3. Rangnekar	59	41	41	47	..
4. Present study: Estimates III (a) & (b) as lower and upper limits*	43–46	12–13	29–31	47–50	25–27

* We can add another estimate for the years 1949—50 and 1953—54 by taking the average of 3 neighbourhood years to compare with the single-year estimates of (1) & (2). Let us call this Estimate 4 (b):—

Average of 1948, '49 & '50 28—30
Average of 1952, '53 & '54 24—26

Sources:

1. *Loc. cit.*
2. *Report* Vol. I, p. 138.
3. D. K. Rangnekar, *Poverty and Capital Development in India* (O.U.P., London, Issued under the auspices of the Royal Institute of International Affairs, London 1958), p. 227.
4. Table 2.

To facilitate comparison with the single-year estimates of M-G and TEC, we have provided in the footnote to the above Table three-year averages to allow for possible differences that might be caused by discrepancies in the reference year. Only for 1949—50 does this make any substantial difference to our estimate, but even so, the gap between M-G's estimate and our estimate remains very large.

1.4.1 A scrutiny of M-G's estimate

Messrs. Mukherjee and Ghosh used the total-profit-minus-dividend method. Their estimate was made as follows: Corporate income assessed to income tax in 1949—50 Rs 185.60 crores; *minus* Income and Super Taxes in 1949—50 Rs 80.14 crores; *equal* Profits-after-tax Rs 105.46 crores. From this an amount of Rs 36.95 crores was deducted as a figure of total dividend — it is not shown how this figure of total dividend was obtained — and the estimate of Rs 68.51 crores was thus arrived at as the amount of total retained profit [1].

Assuming that TEC *sample* figures are correct, we can demonstrate that Mukherjee and Ghosh err both in accepting the Income-tax figure of profit-after-tax and in their estimate of total dividend.

Let us begin with the figure of total dividend.

Indeed, if we apply the proportion of ·4 as the raising factor to the dividend figure (Rs 15.08 crores) of the TEC sample for 1949—50, — just as it is applied to the figure of retained profits in estimate II — a very close agreement appears to be found. Witness $\frac{15.08 \times 10}{4} = 37.70$ crores against the M-G estimate of Rs 36.95 crores [2]. But this is patently a spurious check. For, on the income side M-G have taken the income of *all* companies registered in India, including financial companies. There is no reason to suppose that the financial companies — by paid-up capital representing some 15 percent of all companies registered in India — neither earned nor distributed any profits in that particular year. We must therefore allow for some profit, and dividend, on the account of financial companies. If we consider the financial companies on a par with other companies the figure of dividend in crores of rupees is not 37.70 but 37.70 + 6.65 [1] or 44.35. However, we may be more liberal and assume that the rate of profit earned by the financial companies was only half that earned by the sample companies while the practice of distribution (and retention) by the financial companies were the same as that by the sample companies. Even then we get a figure which is 37.70 + 3.33 or 41.03. This is a little more than 4 crores in excess of Messrs. Mukherjee and Ghosh's figure of dividend (Rs 36.95 crores). This would mean that on this score, M-G's estimate of saving would be an overestimate by 4 to 7 crores (the latter, if we take the profitability of financial companies equal to other companies).

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[1] *Loc. cit.* p. 67n.

[2] This argument was actually advanced by a high authority in a communication to us.

Let us now compare the estimates of income. From what has been said in the above paragraph and the footnote, we find that our estimate of income-after-tax of all companies including financial companies according to the TEC sample would be Rs 57.62 crores in 1949—50 if we allow the same rate of profit to financial companies as that in other companies (if we allow only half, the amount would be still less), against the figure of Rs 105.46 crores derived from Income-tax sources which Messrs. Mukherjee and Ghosh have used. This shows a very wide discrepancy indeed, and if some plausible explanation is not found [2], confidence in the Income-tax data, or even in the sample data would be rudely shaken.

Fortunately in this case, a very simple explanation can be found which would reduce the discrepancy to a more reasonable proportion. The most obvious error into which Messrs. Mukherjee and Ghosh seem to have fallen is that they have mistaken the Income-tax *assessment year* for the *company accounting year*. The assessment year usually falls next to the accounting year of the companies. Speaking in terms of rough correspondence, assessment year 1949—50 should normally correspond to the accounting year 1948—49; the assessment year 1950–51 to the accounting year 1949—50, and so on. But there are times when assessment work falls in arrears and then a good deal of overlapping and combination of 2—3 years' assessment is shown in the annual returns of income-tax assessment. It happens that the year with which we are concerned here, did not involve a very large error of this latter type, as we shall presently see.

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[1] Calculated as follows: 37.70 represent dividend of 85 percent of all companies. Therefore the dividend of all companies = 37.70 × 100/85 or 44.35 which is 6.65 in excess of 37.70.

[2] The question of tax evasion could not disturb the comparability between Income-tax and sample data, since both are taken from the formal statements of the companies concerned.

Let us place side-by-side our estimate (from TEC sample) of total corporate profit-after-tax, and the income-tax assessment figures of corporate profits-after-tax:

(Amounts in Rs crores)

	I From T.E.C.-sample		II Income-tax figures of profits-after-tax	
Year	Profits-after-tax for all companies excl. financial companies (applying the proportion of .4 to TEC sample figure of profit)	Estimate of total profits after tax for all companies including financial companies (considering (1) as representing 85% of paid-up capital of all companies including financial companies)	Year (as shown in Income tax returns)	Amount
	(1)	(2)	(3)	(4)
1948—49	78.25	92.06	1949—50	105.46
1949—50	48.98	57.62	1950—51	66.95
1950—51	75.93	89.29	1951—52	108.10

Clearly, the income-tax figure of Rs 105.46 crores which Mukherjee and Ghosh have taken, relate more to the company accounting year 1948—49, and Rs 66.95 crores which is shown against 1950—51, to the company accounting year 1949—50. If we consider that the income-tax figures may contain some carry-over of assessments, the discrepancies would not appear too large.

To sum up. We have established that (i) the M-G estimate of corporate profit retention for the year 1949—50 is a very great over-estimate; (ii) this over-estimate arises out of — (a) an under-estimation of total dividends and (b) a still larger over-estimation of corporate income arising mainly out of a mistaken reference year and out of the practice of carrying over arrears of assessment by the Income-tax Department. In this connection we have suggested that much of the discrepancy between the profits as shown in Income-tax data and the profits estimated on the basis of sample data would be reduced if a lag of one year is introduced to the Income-tax data. Much — but not all — of the discrepancy would be thus reduced since large errors due to overlapping assessments would still remain [1].

We have also shown that the TEC estimate of total corporate saving for the year 1953—54 is a high over-estimate. But we are not in a position to analyse this estimate since the TEC does not give the basis of its estimate in its published Report.

Only in one case could these estimates prove to be realistic: If these authorities were to take into account the hidden profits of corporations, the resulting estimates could possibly exceed the ones they have provided. But they have not done so. Towards the end of this section (§ 3.1.5) we shall try to estimate the funds that are hidden away abroad and the portion that comes back as a genuine saving.

1.4.2 A scrutiny of Rangnekar's estimate

Dr. Rangnekar's estimates are not as wide of the mark as the other two, mainly because he adopts a more suitable method. But it is still considerable, except for a virtual identity for the year 1951—52.

He applies to the Income-tax data of net corporate income some notional ratios of profit retention [2]. It is curious tnat he should not have made use of the RBI study of company finances (to which he makes reference in another context just 3 pages later [3]) and the TEC study to get firmer ratios of profit retention. Had he done that, his estimates would have improved considerably. We demonstrate below four successive calculations by which improvements on his estimates could be attempted, working still with Income-tax data:-

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[1] Some error — though a much smaller one — in our estimates also accounts for a (small) part of the discrepancy.

[2] See Rangnekar *op. cit.*, p. 227, note to Table 47.

[3] *Ibid.*, p. 230n.

(*Amounts in Rs crores*)

Year	Corporate income after tax	Annual corporate saving ratios	Saving	Same, taking income with 1-year lag	Taking the average corporate saving propensity for 1946–55 from TEC & RBI which is .393	
					Without income lag	*With income lag*
			(1)	(2)	(3)	(4)
1948–49	101	.511 (TEC)	52	54	40	41
1949–50	105	.230 („)	24	15	41	26
1950–51	67	.384 (RBI)	26	41	26	42
1951–52	108	.477 („)	52	47	42	39
1952–53	98	..	..	..	..	..
Total 1948–49 to 1951–52 (4 years)	..	..	154	157	149	148

	Rangnekar's estimates as published by him	*Our estimates*
	(5)	(6)
1948–49	59	43– 46
1949–50	41	12– 13
1950–51	41	29– 31
1951–52	47	47– 50
Total	188	131–140

The lowest of these, columns (3) and (4), are nearer our estimate. Without seeking detailed reasons for this we note that the major reason of large discrepancies still occuring when we work with the annual ratios of the TEC and RBI samples is the fact, stressed by us earlier, that the annual figures of company incomes as given by Income-tax sources are not accurate. And these inaccuracies do not cancel themselves out on such a short period (as a four-year) total.

Dr. Rangnekar also does not take into account the clandestine transfer of Indian funds abroad (or part thereof), an estimate of which he furnishes while estimating the savings of corporations for four years. We make an attempt in this direction in the next sub-section.

1.5 An estimate of possible corporate savings out of hidden profits

(a) It is well known that during the war and post-war years, one of the methods by which funds were smuggled out of the country was by means of under-valuing the export invoices and over-valuing the import invoices. A very large part of these funds were used to finance the smuggling of gold into the country which only increased hoarding [1]. But some part of the funds was also utilised in acquiring genuine capital assets abroad, as the recent repatriation of capital from abroad recorded by the SIFLA shows [2]. The same source mentions that one of the ways in which import of capital goods has been financed recently is by the issue of shares of new companies against the delivery of capital goods [3]. It is possible that some import of capital goods could also have been financed out of the invoicing practice that we mention here.

A rough estimate of the funds that may have been smuggled out of the country by invoicing arrangements is presented below:

Table 4. CLANDESTINE TRANSFER OF INDIAN FUNDS ABROAD THROUGH TRADE CHANNELS 1948—55

(Amounts in Rs crores)

Year	Amount	Year	Amount
1948—49	39	1952—53	51
1949—50	43	1953—54	44
1950—51	49	1954—55	51
1951—52	67	1955—56	52
	Total 1948—55	396	

For method of estimation and sources, see Appendix III.

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[1] Rangnekar, *Poverty and Capital Development in India* (OUP, Issued by the Royal Institute of International Affairs, London 1958), p. 220.

[2] *Report II*, p. 83; see also *supra*, pp. 48—49n.

[3] *Report II*, p. 84.

(*b*) *It is of course not certain that all these were transactions of incorporated* enterprises. *It is* quite *likely* that many of these transactions have been carried on by partnership and other unincorporated enterprises. Due to this borderline nature, it is not easy to determine what part of these funds could be attributed to corporations. But leaving this question open, we may perhaps do better to attempt a notional estimate of what part of these clandestine transfers return to India not as smuggled treasures (to increase hoarding) but as capital investments and which can therefore be treated as genuine savings.

SIFLA Report II estimates that between July 1, 1948 and December 31, 1953, capital amounting to about Rs 45 crores was repatriated to India from nearby countries like Ceylon, Malaya, Burma, etc [1]. The average annual repatriation of capital works out to Rs. 8 crores. *Report III* does not appear to have continued the estimate, but let us assume that the same annual inflows continued during 1954 and 1955 also.

Knowing that the major part of the holdings of assets by Indians in these countries belongs to individuals rather than to joint-stock companies, let us assume that only one-fourth of the repatriation accrues to the joint-stock companies, i.e., Rs 2 crores annually.

SIFLA also makes an estimate of shares of Indian joint stock companies acquired by foreigners in the following manner: Indian companies "import goods on a consignment basis but do not fully remit the proceeds of the sale of these goods to the consignor companies. It is believed that a large part of the investment in the oil refineries was received in this manner". The advantage is that under the existing regulations, the Indian firms need not secure the previous permission of the Exchange Control Department of the Reserve Bank of India so long as these imports are covered by valid import licences [2]. SIFLA estimates such inflow of foreign capital as a residual after deducting from the census total of net increase in foreign investments net cash transfers and the estimated amount of retained earnings by foreign firms. The investment in kind accruing to foreigners is thus estimated at Rs 85 crores for the period between July 1, 1948 and December 31, 1953 and Rs 19 crores for the two years 1954 and 1955 [3], or Rs $15^1/_2$ crores annually during the first period, and Rs $9^1/_2$ crores annually during the second; for the two periods together, an average of Rs 14 crores annually.

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[1] SIFLA, *Report II*, p. 83.

[2] *Ibid*, p. 84.

[3] SIFLA, *Report III*, p. 18.

We may now pose a question: If Indian companies can import capital goods in the above manner, what prevents them from importing capital goods on payment of their undisclosed profits transferred abroad by the invoicing practice referred to earlier? If we agree that this is possible, the real difficulty is how to estimate its extent. It may be quite reasonable to assume that an import of capital goods in this manner is about half that taking place through the issue of company shares to foreigners. For the years between 1948 and 1955 this would then be an annual amount of Rs. 7 crores. This and the annual capital repatriation of Rs 2 crores mentioned earlier gives us an aggregate capital repatriation of Rs 9 crores. Let us round it off to a figure of Rs 10 crores.

We have seen in Table 4 that the clandestine transfer of funds — profits, presumably — averaged during 1948—55 approximately Rs 50 crores annually. It may be reasonable, therefore, to think that something like 20 percent of such funds flowed back into the country as capital of joint stock companies and constituted genuine saving for the latter. Applying this ratio to the figures of Table 4, we finally present an improved version of our estimate III of Table 2 and bring it out in Table 5 on p. 63. We must state that we have made no attempt to identify the part of undisclosed profits that is retained in India from which some saving (as opposed to hoarding) is likely to occur. Perhaps such measures as demonetisation of high-denomination currency notes were quite effective and genuine saving out of such funds at home was made difficult and this drove funds abroad. Frankly, we have hardly any clue to the question of making even a notional estimate of hidden profits within the country and therefore we leave it untouched [1].

1.6 The Final estimate of corporate savings

The position that finally emerges is brought out in Table 5.

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[1] A very large part of such profits retained within the country must have been turned into real property — by acquiring (and building) houses, land, estate, etc. Except for building *new* houses and effecting improvement on land (which is hardly likely), such saving is only cancelled out by dissaving elsewhere in the economy, so that it adds little to the aggregate national saving.

Table 5. ESTIMATE OF CORPORATE SAVINGS WITH CORRECTIONS FOR REPATRIATION OF UNDISCLOSED HOLDINGS OF INTERNATIONAL ASSETS

(Rs crores.)

Col. No.	(1)		(2)	(3)	
Year	Estimate III of Table 2		Additions for correction	Final estimate	
	(a)	(b)		lower	upper
1946	30.02	35.28	(10.00)	40.02	45.32
1947	24.96	26.70	10.00	34.96	36.70
1948	43.13	46.13	7.80	50.93	53.93
1949	12.17	12.97	8.60	20.77	21.57
1950	28.55	30.54	9.80	38.35	40.34
1951	46.58	49.82	13.40	59.98	63.22
1952	13.32	14.25	10.20	23.52	24.45
1953	25.40	27.17	8.80	34.20	35.97
1954	33.61	35.95	10.20	43.81	46.15
1955	55.42	59.28	10.40	65.82	69.68
Total 1946—55	312.96	338.09	99.20	414.14	437.33

Sources and method of estimation;

1. From Table 2.
2. Calculated at 20 percent of annual figures in Table 4. For 1946 and 1947 rough average of the later 8 years taken. These years may not have seen the return flow, but we have neglected the time lag, assuming that these years must have seen some amount of investment at home out of these hidden profits, any way.

2. FOREIGN ENTERPRISES

In our estimates of retained profits of corporations in India, we have left out so far, as indeed all such estimates do usually leave out, the entire sector of foreign enterprise. However, as we have argued in the preceding chapter, it is necessary to provide a separate estimate of the profits of foreign business retained and re-invested in India. Fortunately, the task has been facilitated by the RBI Survey of India's Foreign Liabilities [1]. An analysis of the Survey (conveniently called SIFLA) Reports gives sufficient insight into the practice of profit retention by foreign companies in their Indian business. If proper analysis is made, it also throws very important sidelights on the dimension of foreign enterprise and its relative position vis-a-vis the modern Indian business sector (private) as a whole.

2.1 *Types of foreign business investment in India*

The SIFLA Reports classify foreign business investments in India under two main heads:- (1) Direct investments, and, (2) what they call portfolio investments.

(1) Direct investment consists of (a) investment in *branch organisations of foreign firms*, and (b) investment by foreigners in ordinary shares of Indian joint stock companies (i.e., companies registered in India) which are *controlled by foreigners*.

(2) All investments by foreigners in Indian joint stock companies whose control rests in Indian hands, are treated as "portfolio" investments of foreigners. These consist of risk capital (ordinary and deferred shares) and debt capital (preference shares and debentures). It appears that debt capital invested even in those Indian companies which are controlled by foreigners is treated as portfolio investment.

2.2.0 *The figures of foreign investment*

We shall go into the question of the figures of foreign investment and the relative proportions of their components in some detail.

The figures of foreign investment as presented by the SIFLA *Reports* can be compiled in a table as on next page.

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[1] Three Reports have been published, viz., *Census of India's Foreign Liabilities and Assets As on June 30, 1948*, and *Reports on the Survey of India's Foreign Liabilities and Assets As on 31st December and on 31st December 1955* respectively. We shall refer to these Census and Surveys as SIFLA and to the Reports as *Reports I, II & III* respectively.

Table 6. FOREIGN BUSINESS INVESTMENT IN INDIA

(*Amounts in Rs crores.*)

	As on 30.6.48	As on 31.12.53	As on 31.12.55
I. Direct:			
(a) Branches	162.11	232.01	267.67
(b) Shares in Indian joint companies controlled by foreigners	75.04	117.26	143.59
Total Direct		349.26	411.26
II. Portfolio:			
(a) Ordinary shares	50.42	57.79	55.29
(b) Debt capital		12.26	14.09
Total Portfolio		70.05	69.38
Grand Total	287.57	419.32	480.64

Source: SIFLA *Reports II & III.*

From these figures, straight percentages are drawn in the *Reports*[1] in a somewhat verbal form. Presenting it in a systematic form the picture in terms of percentages is as follows:

	Percentages		
	As on 30.6.48	As on 31.12.53	As on 31.12.55
I. Direct:			
(a) Branches	56.6	55.4	55.7
(b) Shares in controlled Indian companies	26.0	27.9	29.9
Total direct		83.3	85.6
II. Portfolio:			
(a) Ordinary shares	17.4	13.8	11.5
(b) Debt capital		2.9	2.9
Total Portfolio		16.7	14.4
Grand Total	100.0	100.0	100.0

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[1] Cf. *Report II*, p. 9, and *Report III*, p. 13.

2.2.1 The fallacy of figures

The fallacy behind these figures of investment and their ratios lies most patently in adding up items that do not add at all: the items placed under the portmanteau term "investment" refer to quite different things. This becomes clear when one carefully reads through the description of the computational bases of the various categories of investment given in the *Reports*. For instance, branch investments refer to the total assets of the branches of foreign firms *in India* minus the liabilities of these branches *owed to* Indians (companies or persons), while foreign investments in *controlled* and *un*controlled Indian joint stock companies refer to (i) *equity* values of ordinary and deferred shares, and (ii) original values of preference shares and debentures [1]. By *equity* is meant what elsewhere we have called net worth; i.e., paid-up capital plus reserves plus balance of profit [2].

One cannot simply add them, as the RBI has done, without first reducing them in some way or other to one common term. It is only logical, then, to suspect that the fallacy of adding different things gives a distorted picture of proportions.

Within the limitations of the data made available in the *Reports*, we shall try to work out tentatively an approximation to the appropriate figures and their proportions both with respect to foreign investments and to foreign business, as above, and their relation to the total corporate or organised [3] investment and business in India. We shall do this in order to demonstrate a correct *method*. The resultant set of figures and proportions will remain no more than approximations until the basic data have been improved by the SIFLA.

As our argument cuts across the RBI classification of foreign investments presented in Table 6, it is just as well that before proceeding to work out the figures and their proportions, we formally present our classification of foreign investments.

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[1] *Report III*, p. 28.

[2] *Ibid*, p. 29.

[3] In India the expressions "organised business or industries sector", "corporations" and "modern business sector" are used synonymously since they refer to the same things. Branches of foreign firms are treated in the same category, irrespective of whether in their home country they are incorporated or unincorporated.

2.2.2 *A re-classification of foreign investment*

For our purposes it will be more appropriate to re-classify foreign investments in India as follows:

A. *Investment in branch business of foreign firms*

B. (i) *Risk capital of foreigners in Indian companies controlled by foreigners.*

  (ii) *Risk capital of foreigners in Indian companies not controlled by foreigners (controlled by Indians)* [1].

C. *Debt capital owned by foreigners in both controlled and uncontrolled Indian companies.*

The most important point is the separation of (A) and (B). This is done for two reasons. Firstly, as mentioned before, the bases of computing their values are completely different. Branch investments are computed as total assets of branches minus their liabilities to Indians, whereas risk capital which consists of ordinary and deferred shares is stated as equity values, equity defined as the sum of paid-up capital, reserve funds and balance of profit. This is true for controlled as well as uncontrolled Indian companies.

Secondly, statistics of (A) are a class apart. They are distinct from all available statistics of Indian joint stock companies, while much of (B) — e.g. paid-up capital — is mixed up with the statistics published by the Registrar of Joint Stock Companies. To this extent, much of the savings out of profits of this group of business has already been included in our estimate of corporate savings (Table 2). (C) is debt capital, signifying no ownership. We shall neglect this item altogether. Much of this small item will anyhow have been included in the figures of total capital employed that we shall use in our analysis.

2.2.3 *Reduction to a common term*

In our attempt to find out the ratios of the different components of foreign business, the first task is to reduce the figures of (A) and (B)

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[1] Control of Indian companies is obtained by foreign firms not necessarily by holding a majority share of capital. See RBI, SIFLA Report III, p. 28: "The element of control stems from the agreement between the (foreign) managing agent and the (Indian) company rather than from the ownership of shares of the latter by the former."

in our re-classified scheme to a common figure. The more accurate this reduction, the more correct will be the ratios derived.

Supposing, we have the figures of assets on the one hand, and figures of net worth on the other. For a proper comparison, we have either to *reduce the asset figure to net worth figure (mark the coincidence of the* logical term and the *statistical operation,* since net worth covers but a *part* of the assets), or convert the net worth figure into asset figure. Statistically, the latter is an operation of what is called *blowing up* or *stepping up,* while on the logical plane the process remains a *reduction* nonetheless. A selection of one or the other of the statistical operations will not affect the result so far as the *proportion* to be derived is concerned, as long as we reduce the two types of investment (A) and (B) to one common term.

Actually, however, the SIFLA figures of group A (branch investment) represent neither total assets nor net worth, while the investments of group B (direct and indirect foreign investments in Indian companies neglecting debt capital) are clearly given as net worth figures. Therefore, we have to clarify first of all what exactly the SIFLA estimate of branch investment represents.

As stated earlier, by branch investment, SIFLA refers to total assets of the branches of foreign firms in India minus the liabilities of these branches *owed to* Indians (companies or persons). That is to say, the assets of the foreign branches in India are presented net of the liabilities of the branches to Indian companies and 'persons' [1] and then such net assets are treated as "investments"! It is clear that these net assets are 'net' in the balance of payments sense only. In the real investment sense of the term, net assets should simply mean assets net of depreciation. This should mean that when we are measuring the *extent* of the business of foreign branches, we should take their total assets held in India net of depreciation, but gross of liabilities to Indian "persons".

Perhaps this point can be made clearer with the help of a balance sheet. The picture presented by the balance sheet of foreign branches is shown as follows:

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[1] The exact legalistic formulation is "Their (of the branches) total liabilities to 'persons' resident in *India*". *Report III,* p. 28. Here the word 'persons' includes individuals as well as companies since from the legal point of view a company is treated as a corporate *personality.*

Combined Balance Sheet of all Branches of Foreign Firms in India

Liabilities	*Assets* (net of depreciation)
a) to foreigners (L_f)	
b) to Indians (L_i)	
Total liabilities (L)	= Total assets net of depreciation (A)

Thus the total liability, $L = L_f + L_i$; and also the total assets net of depreciation, $A = L_f + L_i$.

The figures of assets of foreign branches presented in the *Reports* are not A, but $(A - L_i)$, which is the same thing as L_f.

We must therefore add L_i to the figure of branch assets (which the *Reports* call *investments*) presented in the *Reports*.

Now, the figure of total assets of foreign branches is not be found uniformly in the *Reports*. We have examined *Reports II* and *III*, and found that the total assets of foreign branches in India can be deduced from Statements 10, 11 and 12 of *Report II* (Total Indian Liabilities and net position of branches of foreign firms and companies) assuming that these refer to assets net of depreciation. The same types of statement are not repeated in *Report III*, from which it is difficult to get any comparable figures of total assets of foreign branches held in India.

2.3 The actual percentages of the types of foreign investment

We can therefore apply the method of reduction to one year only. The resultant picture of the percentage share of different categories of foreign investment is brought out in Table 7 on the next page.

Table 7. CORRECTED PERCENTAGES OF FOREIGN INVESTMENT IN INDIA BY TYPES, AS ON DECEMBER 31, 1953

Type	Business = total assets		(Investment = equity)		Percentages according to SIFLA[3]
	Rs Crores	Percentage	Rs Crores	Percentage	
A Branches	557 ([1]	*60.5*	557.32 × .481([2]= 268	*60.5*	*56.9*
B Equity $(175 \times \frac{1000}{481})$	364	*39.5*	175	*39.5*	*43.1*
(i) Controlled $(175 \times \frac{1000}{481})$ ([2]	243	*26.4*	117	*26.4*	*28.9*
(ii) Uncontrolled $(58 \times \frac{1000}{481})$ ([2]	121	*13.1*	58	*13.1*	*14.2*
Total A + B	921	*100.0*	443	*100.0*	*100.0*

[1] Taken directly from Report II by adding up figures of India's liability to foreign branch business (which is the same thing as foreign branch assets in India) given in Statements 10, 11 and 12.

[2] Proportion of net worth to total assets (net of depreciation) as obtained from RBI sample for the period 1950—55.

[3] Worked out from Table 6, excluding debt capital, for the sake of a comparison.

It has been possible to introduce corrections to the figure of branch investment only. The 'net worth' equivalent of branch investment is Rs 268 crores instead of 232 crores. As a result, the picture of percentage shares of the various categories of foreign investment changes slightly; — the share of branch investment increases and the share of the rest correspondingly decreases. Perhaps if the SIFLA itself had adopted our method, it might have led to a certain re-examination (and revision) of the figures of the branches. Further, if it collected the assets figures of indirect investments also, it might be excepted to change the picture of proportions for the purpose we have in mind. At any rate, whether it did or did not substantially alter the picture, the percentages obtained would be definitively more reliable.

The R.B.I. set out to determine the country's balance of payments position as well as the international investments position [1]. Actually, however, in the SIFLA Reports the latter appears more as a by-product of the former than as an objective in itself. The reason is of course the inherent difficulty of the subject and of the statistical data to be dealt with. For instance, in the case of branch investments, as the *Reports* state, long-term investments cannot be separated from short-term ones [2]. But nevertheless, we feel that if an economic analysis of the type we have attempted is kept in view, the presentation of the data can be oriented and improved accordingly.

We now turn to our main tasks of comparing (a) the extents of Indian and foreign business in India and their respective proportions, and (b) their respective extents and proportions of profits retained in business.

2.4 *Relative ratios of Indian and foreign business*

The branches of foreign firms operating in India constitute some of the most highly organised business firms in India. There can be no hesitation, therefore, in treating them at least on a par with the Indian corporations insofar as the organised nature of the business is concerned. The sum of the business represented by the foreign branches and the Indian joint stock companies can be given the name of "organised private business sector" and be considered in this sense as the total company sector. The relative position of this organised private business sector is shown for the year 1953 in Table 8 on the next page.

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[1] See the citation from the IMF's request in *Report I* of SIFLA, p. 7.

[2] In such cases the RBI might at least indicate the relative proportions of the two by some means or another.

Table 8. RELATIVE POSITIONS OF THE SUB-SECTORS OF "ORGANISED" PRIVATE BUSINESS SECTOR IN INDIA, 1953.

Sub-sector	How derived	Assets (Rs crores)	*Percentage*
I (a) Indian joint stock companies excluding financial companies	RBI-sample: $(1{,}010 \times \frac{100}{53})$	1,906	
(b) Financial companies (Indian)	deducting (a) from (c)	310	
(c) Sub-total I(a)+I(b)	$(1{,}906 \times \frac{100}{86})$	2,216	*79.9*
II Branches of foreign firms	Vide Table 7	557	*20.1*
III Total		2,773	*100.0*
Further breakdowns			
1. (i) Assets of Indian companies attributable to Indian shareholders only	I(c)—I(ii)—I(iii)	1,852	*66.8*
(ii) Assets of Indian companies attributable to foreigners but controlled by Indians	Vide Table 7	121	*4.36*
(iii) Assets of Indian companies attributable to foreigners and controlled by foreigners	Do	243	*8.76*
Total Assets of Indian joint stock companies	I(i)+I(ii)+I(iii)	2,216	*79.9*
2. Total Assets of Indian companies controlled by Indians	(1(i)+1(ii))	1,973	*71.15*
3. *Foreign investment (excl. capital lent) direct*	(II+I(iii))	800	*28.85*
Total	2+3.	2,773	*100.0*

(*Table concluded on next page*)

Table 8 (concluded)

Sub-sector	How derived	Assets (Rs crores)	*Percentage*
4. Foreign investment (Direct & portfolio exl. capital lent)	(II)+1(ii)+1(iii)	921	*33.2*
5. Total foreign investment (direct & portfolio excluding capital lent)		921	*100.0*
(a) Branches		557	*60.5*
(b) Shares in Indian companies attributable to foreigners and controlled by foreigners		243	*26.4*
(c) Direct foreign investments	5(a) + 5(b)	800	*86.9*
(d) Shares in Indian companies attributable to foreigners but controlled by Indians	Vide Table 7	121	*13.1*
5. (d) as percentage of 2 (Assets of Indian companies controlled by Indians)			*6.1*

2.5 Profits retained by foreigners in their Indian business

The Reserve Bank of India, in its Reports on the Survey of India's Foreign Liabilities and Assets, has estimated the profits of foreign investments in India *retained in India*. These have been given in lump sums for two periods as follows:

Table 9. PROFITS RETAINED BY FOREIGNERS IN THEIR INDIAN BUSINESS, 1948—55

Period	Profits retained in India (Rs crores)
1. July 1948 to December 1953 ($5\frac{1}{2}$ years)	70
2. January 1954 to December 1955 (2 years)	23
3. Total for $7\frac{1}{2}$ years, 1948—55	93

Source: *Report III*, p. 18

It appears that these retained profits relate to "direct" investments only.

It may be of some interest to note that *Report II* gives a breakdown of earnings retained *in India* for item No. 1 — Branches kept Rs 40 crores and 'subsidiaries' Rs 30 crores. It is clear that they held their retained earnings in India relatively less than the "subsidiaries" which presumably refer to the controlled companies: Of the total direct investment of foreigners in India the branches accounted for 70 percent and the controlled companies for 30 percent, whereas of the total amount retained in Indian business (Rs 70 crores) by all direct foreign business, the branches accounted for 57 per cent (13 percentage points lower than their share of business) and controlled companies, 43 per cent (i.e., 13 percentage points higher than their share of business).

2.6 A comparison with profit-retention by Indian companies

We can now institute a rough comparison of profit retention by foreign companies in India with that by Indian companies.

We take into account only "direct" foreign investments. The amount of profit retained (saving) has been viewed as a ratio of net worth [1].

A. For the period 1948—53 ($5^{1}/_{2}$ years)

. The annual rate of retention by direct foreign business was . . . . 70 ÷ 5.5, i.e. Rs 12.73 crores

Rs 12.73 crores as percentage of net worth, 1953 (Rs 385 crores) = *3.3 percent*

. For a comparable period, 5 years from 1948 to 1952, the annual retention by Indian companies was . . 153.51 ÷ 5 Rs 30.70 crores

In order to eliminate overlapping of savings attributable to foreigner-controlled investment in Indian companies, we reduce 30.70 by a ratio 243 : 2216 = ·11

We get 30.70 × ·11 = 3.38

Thus (30.70 — 3.38) is the saving attributable to Indian investments in Indian companies — i.e., Rs 27.32 crores

Rs 27.32 crores as percentage of the appropriate net worth (Rs 949 crores) = *2.9 percent*

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[1] For the reasons given at the end of § 3.2.2.3, we can obtain an accurate figure of net worth of foreign investment for the year 1953 only. Our figure of net worth therefore relates only to that year.

We thus see that the rate of retention as applied to the net worth of 1952 (not to profits) were lower in Indian business than that in foreign business in India during the period under consideration.

B. For the years 1954 and 1955 [1]

Calculating on the same lines:-

. Annual foreign retention Rs 11.50 crores
Do as percentage of net worth = *3.0 percent*
. Indian retention for two years Rs 95.11 crores
. To make it comparable we reduce 95.11 —
(19.11 × .11) = Rs 84.65 crores, i.e., annually Rs 42.33 crores
Do as percentage of net worth = *4.5 percent*

Thus, during 1954 and 1955 we notice a great reversal: the rate of retention by Indian companies increased considerably while that by foreign business slightly declined. The net result was that the rate of retention by Indian business became indubitably higher than that by foreign business [2].

This aspect will come in for a more detailed analysis in our chapter on profitability of business.

3. UNINCORPORATED ENTERPRISES

The biggest difficulty by far, as we have shown in the preceding chapter, is encountered in estimating the savings of unincorporated enterprises. We have already remarked that with the exception of the Princeton Study, hardly any other study on the subject for any other country has been published [3].

In India, the credit for making the first, and to our knowledge, the only effort made albeit in the most elementary form, goes to Messrs. Mukherjee and Ghosh.

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[1] For India, only the estimates of III (b) of Table 2 have been used. No account has been taken of savings out of hidden profits since similar corrections for foreign firms' saving have not been made.

[2] Cf. also SIFLA, *Report III*, p. 19.

[3] Some results of the analysis of Consumer's Survey study of 1950 (in the U.S.A.) have been recently published. (See Kravis' article in the *American Economic Review*, June 1957).

3.1 (*a*) *Mukherjee and Ghosh's method*

In their estimate for one year only — viz., 1949—50 — Mukherjee and Ghosh adopted an income-minus-expenditure method — a basic variant of the profit-minus-dividend method which they used for deriving the savings of corporations. For the unincorporated sector, they derived the income item from income-tax figures of the "Number of Assessments, Total Income Assessed, and Total Tax Demanded on Different Types of Business and Professional Income" [1].

They netted the assessed income of all business and professions by deducting income-tax and super-tax demands. Then they deducted the incomes of corporate enterprises and professions, and obtained a residue which they treated as the income of unincorporated enterprises.

Finally, they multiplied an estimated average family expenditure by the number of families estimated to belong to this sector. They deducted the resulting figure from the income and thus arrived at an estimate of savings of unincorporated enterprises.

(*b*) *M—G's estimate*

We reproduce below the available details of their estimate [2]:

INVESTIBLE PROFITS OF UNINCORPORATED ENTERPRISES, INDIA 1949—50.

	Rs. Crores
1. Income of all business and professions in 1949—50	361.73
2. *Less* income- and super-taxes	—112.35 *
3. Net income of all businesses and professions in 1949—50	249.38
4. *Less* net income of corporate enterprises	—105.46
5. *Less* net income of professions	— 23.03
6. Net income of unincorporated enterprises	120.89
7. *Less* estimated average consumer expenditure (@) Rs 6,000 per family per annum for 100,000 families	— 60.00
8. Estimated investible profits of unincorporated enterprises	60.89

* The figure quoted in Taxation Enquiry Commission, loc. cit., from the All India Statement No. 4 of all India Income-tax Revenue Statistics, is Rs 102 crores instead of 112 crores. If the figure quoted by the T.E.C. is correct, then there is a direct error of under-estimation of savings by Rs 10 crores.

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[1] Vide TEC Report, Vol. II, Appendix A.

[2] *Loc. cit.*

(*c*) *A scrutiny of Mukherjee and Ghosh's method*

Item no. 7 is of the most crucial importance; in particular, the number of families that has been estimated to represent the ownership of this sector. We shall therefore scrutinise this item.

We take it that the average family expenditure has been estimated from the All India Survey data. We do not propose to examine this part. We shall concentrate our attention on the estimate of the number of families.

The number of assessments attributable to the unincorporated enterprises for the year 1949—50 can be directly calculated as follows:

NUMBER OF ASSESSMENTS OF UNINCORPORATED ENTERPRISES 1949—50.

1. Total number of assessments of all business and professional income	235,571
2. *Less* number of assessment of professions	— 29,035
3. *Less* number of companies (corporations and other concerns assessable at company rate)	— 7,349
Equal	
4. Total number of assessments of unincorporated enterprises	199,187

Sources: Items 1 and 2 from the *Report of the Taxation Enquiry Commission 1953—54*, Vol. II., p. 387 (taken from All India Statement No. 4 of All India Income-tax Revenue Statistics).

Item 3: Income-tax data as published in the *Statistical Abstract, India 1952—53* (New Series No. 4, Issued by Central Statistical Organisation, Government of India), p. 299.

On the other hand, Mukherjee and Ghosh have estimated that 100,000 families represent the unincorporated enterprises. This boils down to assuming two assessments per family.

Now, it is quite possible that more than one member of such families runs his own business; at any rate, there can be no objection *in principle* to such a possibility. It is therefore necessary to *factually* ascertain how close to reality the estimate is. It is quite clear, however, that the estimate of this figure directly affects the estimate of saving.

If, for instance, one assessment per family is assumed instead of two, there would be no saving at all (nor any dissaving). Two assessments per family would give a saving of Rs 61 crores, as shown by Mukherjee and Ghosh. Three assessments per family would show a saving of Rs 81 crores instead of Rs 61 crores, — and so on.

Because the bases and the sources of the estimate of the number of families are not available to us, we are not in a position to test the validity of the estimate given by Mukherjee and Ghosh. Considering the doubtful nature of the crucial estimate of the number of households to be included in the item of expenditure of this sector, we abstain from using this method of estimating the savings of unincorporated enterprises.

And in any case, even if the estimate could be perfected on these lines, the approach touches only the fringe of the unincorporated enterprises sector. We shall demonstrate this presently.

3.2 A radically different approach to the problem

We propose to indicate a line of approach which differs quite radically from the one adopted by Messrs. Mukherjee and Ghosh.

3.2.1 Inadmissibility of using income-tax data in the case of unincorporated enterprises

As we have pointed out, Mukherjee and Ghosh have used an identical approach towards both corporate and unincorporated enterprises so far as the figure of income is concerned.

This cannot be justified. For while by and large the whole corporate sector is likely to be represented in the income-tax data, by far the largest part of the unincorporated sector is *not* represented in the income-tax data.

M-G's estimate (of income and saving) relates to the *taxed part* of the unincorporated sector. Since the main objective is to estimate the saving of the unincorporated sector of business, the taxed part could be considered to represent the entire unincorporated sector only on the assumption that the whole unincorporated sector, except the taxed part, does not save at all.

Such an assumption has neither been stated, nor proved.

In our opinion, there exists no warrant for such an assumption.

The number of assessees involved in the M-G estimate of unincorporated business saving is 199,187. Against this we can identify at least 5 million people belonging to the category of unincorporated enterprises who earn an income below the income-tax range, and who are yet *in a position to save.*

In what follows we work out this reasoning and then illustrate the way we utilise this line of reasoning to indicate a fresh approach in estimating the savings of unincorporated enterprises. We also eventually indicate a rough order of the magnitudes involved.

3.2.2 (I) Determination of income from national income data

The final tables of national income by industrial origin are presented in the Final Report of the National Income Committee (February 1954) under four major industrial sectors. We reproduce all the breakdowns on the next page. (In order to give a notion of the sectoral shares, we also give net outputs for one year only).

We can rule out class IV. Small parts of I, e.g., parts of animal husbandry, forestry and fishery, do enter monetary exchanges and are in the nature of business. But very little of animal husbandry business is likely to yield an income from which saving becomes possible. Forestry is mostly a state enterprise, and if it is profitable, it is largely in the government sector. Private forestry is negligible. Fishery is for the most part an even less profitable business than agriculture.

Thus we can safely neglect I.

It is in II and in III (12) that we should expect to find the majority of the unincorporated enterprises relevant to a saving estimate.

(II) Identification of the income of unincorporated enterprises within categories II & III (12)

We have now the task of identifying more specifically the income that is relevant for our purpose as the income of unincorporated enterprises. This we shall have to do by a more careful process of elimination from proximate items which are mixed up together.

Taking item numbers 5, 6 and 7 under class II, we can get the income of unincorporated enterprises if we deduct from the class total the income originating in the corporate sector — the latter roughly defined as the sum of wages and operating surplus (neglecting interest and rental payments); provided that income originating in public enterprises has been eliminated.

We can omit item no. 7 (small enterprises) altogether for the purpose of determining the income of unincorporated enterprises *relevant to*

Items	Net output 1950—51 (*Rs Abja* * *or milliard*)
I Agriculture	
1. agriculture, animal husbandry and ancillary activities	47.8
2. forestry	0.7
3. fishery	0.4
4. total of agriculture	48.9
II Mining, manufacturing and small enterprises	
5. mining	0.7
6. factory establishments	5.5
7. small enterprises	9.1
8. total of mining, manufacturing and small enterprises	15.3
III Commerce, transport and communication	
9. communications (post, telegraph and telephone)	0.4
10. railways	1.8
11. organised banking and insurance	0.7
12. Other commerce and transport	14.0
13. total of commerce, transport and communication	16.9
IV Other services	
14. Professions and liberal arts	4.7
15. government services (administration)	4.3
16. domestic service	1.3
17. house property	4.1
18. total of other services	14.4
Grand total	95.5

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* 1 *Abja* = 100 crores = 1 milliard = 1 billion.

saving estimates because the average per capita income of this sector is very much below the all-India average household expenditure. This point is explained in some detail in two subsequent paragraphs.

The problem connected with III (12) ("other commerce and transport") is simpler.

We eliminate "other transport" from the item on grounds similar to those (though not exactly the same) on which we eliminate "small enterprises" from class II. What remains is the income of "other commerce". This is available in two breakdowns:

(i) income of employees, and
(ii) income of employers and independents.

It is only the latter — (ii) — that is relevant. These employers and independents number over five million [1]. It is to this group that a reference has been made at the beginning of this section. The average annual income per earner was around 1,950 rupees during the years 1948—50 (three years). This income lies largely below the taxation floor, and yet it can be considered relevant to saving. The reasoning is briefly argued out with the help of the average family income and expenditure figures.

Any income of corporate employers included in this total is taken care of by eliminating the operating surplus of corporations.

(III) *Determination of average household expenditure*

We can determine the average household expenditure by the simple formula

$$\frac{Y - E_g - K}{H} = E_h$$

---

[1] N.I.C. *Final Report*, Table 24, p. 82. Cf. the following: —

Year	Number of employers and independents (million)	Earning per head (Rs)	Total income (Rs. crores) (1 crore = 10 million)
1948—49	5.152	1,950	1,005
1949—50	5.188	1,989	1,032
1950—51	5.223	1,987	1,038

where Y stands for national income

E_g for government expenditure excluding government capital expenditure

K for net capital formation

H for total number of households in the country

E_h stands for average consumption expenditure per household

Thus, for the year 1949—50

Amounts in Rs. crores			Number (crores)	Amount Rs.
Y	E_g	K	H	E_h
9,010	540	738	6.85	1,129

Let us say that a sum of Rs 1,130 represents the average family expenditure for the year 1949—50. Since this average household expenditure is the average of a very, very large number, some 68.5 million units, it can be safely posited that for a rough approximation, only an average household income that is substantially above this household expenditure, is at all likely to generate saving.

(A word about the choice of the year 1949—50. The N.I.C. Final Report in Table 18 gives income from small enterprises for the years 1948—49, 1949—50 and 1950—51. The per head earning was highest in 1949—50, but was not very different from that in 1950—51 which was Rs 659. Of the years for which figures are available, we have thus chosen a year which gives the most favourable position for small enterprises).

(*IV*) *Relevance of the figure of average household expenditure*

It follows, therefore, that an average household income above this figure makes saving possible. It does not follow, however, that every household having an income above this figure saves. Such an inference is neither made, nor is it necessary for our argument. The inference that is necessary and sufficient for our argument is that, speaking of large numbers, average household incomes that lie below the point E_h or ts neighbourhood are not likely to leave any surplus or saving; and, average household incomes that are above the point or its neighbourhood are likely to leave a surplus or saving.

(i) It is by this criterion that we have omitted the item "small enterprises" altogether from our consideration of saving estimates, since we find that for the year 1949—50, the average household income relating to the "small enterprises" sector was hardly more than 900 rupees [1].

The income from "other commerce and transport" is given in two major breakdowns respectively for commerce and transport.

(ii) Let us take "other transports" first. The per head earning in 1949—50 was Rs 1,035. Since only 85 percent of the earners are "self-supporting" [2], the income per household comes to Rs 1,218. This means that it is some 90 rupees in excess of the average family expenditure. Knowing the type of enterprise that this activity involves for the most part, we consider that this margin places the sector on a borderline, but does not definitely indicate the existence of saving. We therefore leave it out also.

(iii) On the other hand, 5,188,000 employers and independents working on their own account, belonging to "other commerce", had an average earning of Rs 1,989 *per head* [3], which indicates a very clear margin for saving.

More extendend attention must be given to this group.

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[1] Estimated thus: Average earning *per head* (vide N.I.C. Final Report, Table 18, p. 71) was Rs. 660. Same source (Table 2, p. 9) gives the distribution of working force in the category "production other than cultivation" from which it is found that 74 per cent are "self-supporting persons" and 26 percent are "earning dependents". Assuming the same ratios to apply to the small enterprise sector also and further assuming that a self-supporting earner is the head of a family (which is realistic, the number of earners who have no family to support being negligible), the family-income of the sector under consideration would be 100/74 × 660 = 892. If the ratio of "self-supporting persons" were higher than 74 per cent, the amount would be still less.

[2] The source and the method of computation is the same as in the preceding footnote.

[3] The family income cannot be computed for the following reason: 82 per cent of the working force in this group is shown as self-supporting earners. But this mostly refers to the "employees" who are excluded from our account, since their work does not constitute an enterprise. The proportions of self-supporting earners and dependent earners in this group thus remain indeterminate. The former is likely to be much higher in the case of employers and independents belonging to "other commerce", if indeed it is not a hundred percent.

(V) *The case of employers and independents belonging to "other commerce" further considered*

(a) This group represents chiefly the trading classes. The N.E.C. *Final Report* shows for 1950—51 5.2 million as the total number of employers and independents in "other commerce" among which we can identify from the Census returns of 1951 as many as 4.8 million traders and moneylenders (the latter comprising only 0.14 million)[1]. This is in itself significant. This occupational group is thrifty everywhere. In India the name of this group ("bania") is a bye-word for thrifty habits.

(b) A more specific consideration which justifies the belief that this group did and does save is the fact that some 41 per cent of the entire rural credit is clearly financed by this group. If we include "relatives" and "agriculturist moneylenders"[2] (who usually have some minor commerce or the other as a subsidiary occupation) the share can be as high as 86 per cent[3].

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[1] *Stat. Abs.*, 1953—54

[2] It is not clear whether the agriculturist moneylenders are included under the sub-heading "Money-lending, banking, and other financial business". — Vide *Statistical Abstract* 1952—53, p. 36.

[3] Reserve Bank of India, *All-India Rural Credit Survey*, *Report of the Committee of Direction*, (Vol. I, part 2, p. 6) Bombay 1957. The enquiry related to the year 1951—52. The agencies providing credits to the cultivators were distributed as follows:-

Agency	*Percentage of credit given*
Government	2.7
Co-operatives	3.2
Relatives	11.8
Landlords	2.2
Agriculturist moneylenders	33.2
Professional moneylenders	32.4
Traders and commission agents	8.5
Commercial banks	0.5
Others	5.5
Total	100.0

That moneylenders are also included by the N.I.C. in the group under discussion is clear from the Census returns. It is also made explicit by the N.I.C. in Table 25, p. 83. We have drawn our data from Table 24, p. 82, — NIC Final Report.

(*VI*) *Schema for the procedure of determining the income of unincorporated enterprises*

We have argued out the case for, and indicated the method of determining the income of unincorporated enterprises. Our next task will be to discuss the problems connected with estimating the saving that is done out of this income. It is better first to give a brief review of the method of income determination in a schematic form, stating sources and the method of estimation. This runs as follows:

Item	Source & method of estimation
1. Income of employers and independents belonging to "other commerce"	Final Report, N.I.C. [1]
2. *Plus* income from "factory establishments"	C.S.O., Estimate of National Income 1948–49 to 1955–56 Table 2, p. 2.
3. *Plus* income from mining	
4. *Less* salaries and wages of factory establishments	Census of Manufactures
5. „ salaries and wages of mining	Number employed × average wage per employee.
6. „ operating surplus of all corporations	Income-tax figures.
7. „ income generated by government (public) factory and mining establishments	Estimated by applying the ratio of "productive capital" in public undertakings in electricity, industries, ports and Central Tractor Organisation to total productive capital in the private sector (organised) as given in the *First Five Year Plan* (p. 32). 107: 1472 or roughly .07.
Equal 8. Income of unincorporated enterprises	

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[1] *Final Report of N.I.C., February 1954*, p. 82. It gives the breakdown for the years 1948—49, 1949—50 and 1950—51. The method of estimating for other years is mentioned in Appendix IV.

3.2.3 The problem of estimating appropriate ratios of saving to income

Once the income has been estimated in the manner shown above, the next task is to estimate the saving out of that income.

This can be done only with a carefully conducted sample survey of family expenditure by types of community. The National Sample

Survey (N.S.S.) is the appropriate institution to undertake such a task. The published reports of the N.S.S. do not permit such an estimate.

Even if such a survey is conducted, it will not be safe to obtain a total estimate of family expenditure for the sector concerned which we can deduct from the total income of unincorporated enterprises to get the saving estimate outright. There may remain a considerable discrepancy between the number of households involved in the income estimate, and the number of households involved in the family expenditure estimates; though indeed a highly resourceful organisation such as the N.S.S., with the careful analytical help of the Indian Statistical Institute, could be expected to remove the discrepancy [1]. Anyhow, a much simpler way would be to determine from such surveys the appropriate ratios to be applied to the different items of income (e.g. 1, 2, and 3 in the schema) and thus arrive at our alternative estimate of saving.

3.3 An alternative estimate of savings of unincorporated enterprises

In the absence of a survey of the type indicated above, it is not possible to give any firm estimate of the savings of unincorporated enterprises [2]. We can therefore aim at doing no more than to give a notion of the region in which such an estimate is likely to fall.

(*a*) *Rough ratios of saving*

We can obtain such a notional estimate by assuming certain ratios. These assumptions are made on the basis of economic judgement, but they are at best only informed guesses. Nevertheless, they can be used for indicating the lower, and possibly the upper limits of the order of magnitudes involved.

Judging by the T.E.C. figures of corporate profits (see Table 52 and Chart 1 in Chapter 6), 1948 was a good year for business if we consider the pre-Korean war years. That year, the rate of corporate profit retention was also high (51 per cent). We have allowed for that year the modest rates of 20—30 per cent for the income of employers and independents belonging to "other commerce", 30—40 per cent for the unincorporated factory establishments, and, 15—20 per cent for unincorporated mining enterprises. The fact that the smaller mines in India are notoriously inefficient, has been taken into account in placing the rate of saving from mining income slightly lower than that of the employers and independents belonging to "other commerce". Unincorporated factories have been assigned the highest rate. It might very well be that they save at a little lower rate than what has been assumed, and that the "employers and independents" save at a rate which is higher than the true rate of the unincorporated factories.

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[1] It is another question how far an integrated sample survey of family *income and expenditure* could serve the purpose. It is better to use as many alternatives for a mutual check as possible.

[2] For that matter, the estimate of the income of unincorporated enterprises that is made by us (out of official figures of national income) is not absolutely firm — though of a better order of reliability.

Since we consider these ratios rather low for a year like 1948, we do not vary them for the next two years when profits were lower.

It is clear that for this extremely rough approach we have used saving as a constant function of income. When more refinements on the lines of our approach are made possible, this might be found to be unwarranted. Furthermore, prices, backlog demands, and the demonstration effect of increasing contact with foreign standards of living (urbanization, for instance) cannot be ignored in a full-scale investigation of the savings of unincorporated enterprises, which constitute a very large part of the consumers of the country.

However, we have made a rough estimate more to stimulate further research on the subject rather than to produce any "final" set of estimates.

(*b*) *Estimates of income and notional figures of savings of unincorporated enterprises*

Following the method advocated in § 3.3.2(VI) we have obtained an income estimate for unincorporated enterprises as a whole, details of which are given in Appendix IV. If we deduct the income of employers and independents belonging to "other commerce" from the total income of unincorporated enterprises, we obtain the combined income of unincorporated factories and unincorporated mining. This combined income is then apportioned between the two items (factories and mining) by using the ratio of all factory income (corporate and unincorporated) to the total income of all factories and mines (corporate and unincorporated) given by the NIC & CSO estimates.

Table 10. THE INCOME AND SAVING ESTIMATES FOR UNINCORPORATED ENTERPRISES, INDIA 1948—55.

(*Amounts in Rs crores*)

Item Year	1948	1949	1950	1951	1952	1953	1954	1955	Remarks
I. INCOME									
1. Employers and independents of "other commerce"	1,005	1,032	1,038	1,086	1,094	1,101	1,094	1,109	NIC-estimate
2. Factory establishments	160	205	179	212	272	295	311	303	Arrived at by subtracting (1) from total *
3. Mining	21	27	23	28	35	38	40	39	
Total	1,186	1,264	1,240	1,326	1,401	1,434	1,445	1,451	total 10,747
II. SAVING									
1. Employers and independents of "other commerce" (Assuming saving ratio of 20—30 per cent)	201–302	206–310	208–311	217–326	219–328	220–330	219–328	222–333	
2. Factory Establishments (Assuming saving ratio of 30–40 per cent)	48– 64	62– 82	54– 72	64– 85	82–109	89–118	93–124	91–121	
3. Mining (Assuming saving ratio of 15–20 p. cent)	3 – 4	4 – 5	3 – 5	4 – 6	5 – 7	6 – 8	6 – 8	6 – 8	
Total: Lower limit	252	272	265	285	306	315	318	319	2,332
Possible upper limit	370	397	388	417	444	456	460	462	3,394

* and then applying to the difference the ratio of .885 for getting the income of factory establishments belonging to the unincorporated sector. This ratio is the ratio of all factories' (corporate and unincorporated) income to the combined income of all factory and mining establishments for the period 1948—55.

Then we apply the respective class ratios of saving to income and obtain the estimates of saving for the three classes of unincorporated enterprises. The total is obtained by adding up the class estimates. These are worked out in Table 10.

In comparison with the uncertain estimate of a small (taxed) section of unincorporated enterprises given by Mukherjee and Ghosh, of a sum of Rs 70 crores in 1949, we have obtained a minimum estimate of saving of the unincorporated sector that year of the order of some 270 crores. However, the true figure may be much higher, with something like Rs 400 crores as the upper limit.

4. THE ENTIRE BUSINESS SECTOR

4.1 Total business saving

We can now bring together the savings of the entire business sector in India which are available for the country's capital formation:

Table 11. TOTAL BUSINESS SAVINGS IN INDIA, 1948—55
(*Amounts in Rs crores*)

Year / Breakdown Col. no.	Indian companies (1)	Foreign enterprises (2)	Unincorporated enterprises (3)	Total (4)
1948—49	46	13	311	370
1949—50	19	13	325	357
1950—51	35	13	327	375
1951—52	55	13	351	419
1952—53	21	13	375	409
1953—54	31	13	386	430
1954—55	40	12	389	441
1955—56	60	12	391	463

Sources and method: Col. (1) The middle points of the final estimates are taken from Table 5. From these the double counting of business savings which are included also in the savings of foreign enterprises, is eliminated by deducting from the middle points of final estimates of Table 5 an annual fraction of .111. This fraction is the ratio of foreign assets in Indian companies controlled by foreigners to the total assets of Indian companies (see Table 8). Col. (2) gives the annual average figures for two periods shown in Table 9, Col. (3): Middle points of the estimates in Table 10.

4.2 Business saving in relation to total capital formation

Relative to the total amount of capital formation in India, these are very large amounts indeed. If we accept the DWP-estimates of capital formation for the years 1948—49 to 1953—54, the percentages that may have been financed by business savings can be set out below:

Table 12-A. BUSINESS SAVING IN RELATION TO DWP-ESTIMATE OF CAPITAL FORMATION

(*Amounts in Rs crores*)

Item / Year	1948 —49	1949 —50	1950 —51	1951 —52	1952 —53	1953 —54	1948 —53
1. DWP-estimate of capital formation	446	524	589	672	659	719	3,609
2. Our estimate of business saving	370	367	375	419	409	430	2,370
3. *(2) as percentage of (1)*	*83*	*70*	*64*	*62*	*62*	*60*	*66*

Sources: (1) D.W.P., op. cit.
(2) Table 11.

While we expect the relative position of business saving to be high, the above percentages appear too high; in any case, they prompt us to re-examine the DWP-estimate, especially because we know that there exists a wide discrepancy between the DWP-estimate of rural investment and the RBI (AIRCS)-estimate of rural investment. We carry out this re-examination in the next section.

With our rough improvements [1] on the DWP-estimate of capital formation which is brought out in § 3.5. (see Table 15), the average contribution of business saving to the total capital formation for the period 1948—51 was somewhere between 43 and 48 per cent as is shown in Table 12-B below [2]:-

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[1] These improvements consist of the inclusion of inventories and a correction for rural investments. See Table 15.

[2] A more neat picture is presented in Table 32 where the average saving of the business sector is placed at 47 per cent of total national saving for the period 1948—53.

Table 12-B. BUSINESS SAVING IN RELATION TO CORRECTED ESTIMATE OF CAPITAL FORMATION, 1948—51

(*Amounts in Rs Crores*)

Item / Year	1948 —49	1949 —50	1950 —51	1951 —52	1948 —51
1. Corrected figure of capital formation:					
(i) lower limit	686	681	778	1,016	3,161
(ii) upper limit	764	766	871	1,120	3,551
2. Our estimate of business saving	370	367	375	419	1,531
3. (2) *as percentage of 1* (*i*)	*54*	*53*	*48*	*41*	*48*
4. (2) *as percentage of 1* (*ii*)	*48*	*48*	*43*	*37*	*43*

Sources: (1): Table 15; (2): Table 11.

Even when the estimate of capital formation is corrected, the ratio of business saving to total capital formation remains an impressive one. Compare with this the rather small share of business profit — of some 16 per cent [1] — in the total national income. We must remember, however, that the total capital formation is itself at a low level. The question whether or not the saving propensity of our business concerns relative to their income is high enough, is quite another matter. It will receive our attention in Chapters 6 and 7.

5. A RE-EXAMINATION OF DWP-ESTIMATE OF CAPITAL FORMATION

5.1 A rough check

Towards the end of § 2.2(IV), we mentioned the great descrepancy between the RBI (AIRCS) estimate of rural investments and the DWP estimate. Our estimate of business savings suggests that the DWP estimate is too low. This can be demonstrated as follows:-

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[1] See Table 26, next Chapter.

Table 13. RESIDUAL ESTIMATE OF PERSONAL SAVING [1]: BY DWP-ESTIMATE OF CAPITAL FORMATION

(*Amounts in Rs crores*)

Year / Item	DWP-estimate of net capital formation	Govt. savings on current account	Estimated business saving	Total identified saving (2) + (3)	Personal saving 1) (1) — (4)
col. no.	(1)	(2)	(3)	(4)	(5)
1948—49	446	— 20	370	350	96
1949—50	524	106	367	473	51
1950—51	589	142	375	517	72
1951—52	672	226	419	645	27
1952—53	659	122	409	531	128
1953—54	719	97	430	527	192

[1] Used synonymously with personal capital formation.

Sources: Col. (1) *op. cit.*; (2) ENI; (3) Table 11.

Within the residual estimate of personal saving shown in Table 13, we can identify monetary savings of "persons" as in Table 14.

Equity subscription by "persons" has not been taken into account. Of course these are not very substantial relatively to the magnitudes we are considering.

Now, comparing col. (5) of Table 13 with col. (6) Table 14, we find that in 1948—49 the identified monetary savings are only slightly less than the personal savings derived as a residue from the DWP estimate of capital formation. In 1952—53 it was substantially less. For the other three years, the identified monetary savings were far in excess of the residual figure of personal capital formation. For the five-year period as a whole (for which figures can be compared), total identified monetary savings of persons (see Table 14) was at least 1.3 times higher than the figure of personal savings derived from the DWP-estimate of net capital formation (Table 13). This is curious; for, in a largely non-monetised economy, one should expect non-monetised savings to be higher than monetised savings.

However, it can be argued that a part of the identified monetary savings of persons may be included in the savings of unincorporated enterprises (under col. 3, Table 13); but it does not offset the relatively vaster amounts that have been imputed for capital formation in housing and other rural investments. And rural housing and other investments belong to "persons" far more than to "unincorporated enterprises" as defined by us.

Table 14. IDENTIFIED MONETARY SAVINGS OF PERSONS

(*Amounts in Rs crores*)

Year / Item	Bank Deposits			Life Insurance premium	Prov.Fund contribution of central and State Govt. employers	Small savings	Increase in deposits of cooperative societies	Total
	Time Dep.	Savings Dep.	Demand Dep.					
Col.no.	1(a)	1(b)	1(c)	(2)	(3)	(4)	(5)	(6)
1948—49	- 1.2	10.5	0.9	32	15	30	6	93
1949—50	- 5.8	- 1.6	-12.4	36	15	26	5	62
1950—51	- 5.1	3.3	2.6	36	15	33	75	160
1951—52	8.9	4.1	- 5.1	42	15	36	4	105
1952—53	11.3	2.7	- 9.4	8	15	48	8	84
1953—54	10.3	1.3	- 3.8	9	15	40		

Sources and methods. For Banks the personal savings are derived with the help of the ratio of personal deposits to total deposits as given in the RBIB analysis of bank deposits, RBIB Nov. 1954. The ratios (expressed in decimals) are for 1(a) .53, 1(b) .96, and for 1(c) .27. Col. (2) Stat. Abs. Col (3) Figure for 1949—50 given by M-G, op. cit. The same figure has been used for all the years, which must be therefore slightly underestimated. (4) RBIB. (5) Stat. Abs.

Thus, to allow for capital formation by "persons" in the non-monetised sector, capital formation by persons must far exceed the monetary savings attributable to "persons". Therefore we think that DWP-estimate of capital formation is an under-estimate.

5.2 Corrections to the DWP estimate

The most obvious sources of error of the DWP-estimate that comes to mind are (i) inventories, and (ii) rural investment. We try out these corrections for the years that these data are readily usable.

(i) We shall use the inventory estimates of a recent publication issued under the auspices of the Royal Institute of International Affairs (London 1958)[1]. This is given for 4 years only.

(ii) In 1951—52, the AIRCS estimate of rural investments was more than double the DWP estimate. For purposes of correction, we add to the DWP estimate of total capital formation (including rural investments) an amount which is half of the DWP estimate of rural investment to obtain a lower limit, and again an amount fully equal to the DWP estimate of rural investments to obtain a probable upper limit. We do this for all the years for which we are making the correction.

The result is presented in Table 15.

Table 15. CORRECTED FIGURES OF TOTAL CAPITAL FORMATION

(*Amounts in Rs. crores*)

	DWP-estimate of total capital formation	Corrections for rural investments		Inventory	Corrected total	
		half	full		Lower limit (1 + 2 + 4)	Upper limit (1 + 3 + 4)
	(1)	(2)	(3)	(4)	(5)	(6)
1948—49	446	80	158	160	686	764
1949—50	524	85	170	72	681	766
1950—51	589	94	187	95	778	871
1951—52	672	105	209	239	1,016	1,120

Sources: (1) op. cit.; (2) and (3) ibid, rural investments; (4) Rangnekar, op cit., p. 297.

5.3 *The plausibility of our estimate of business saving*

If we deduct the total identified savings (col. 4. Table 13) from columns (5) and (6) above, we have the following range of estimate of capital formation on personal account (Table 16):-

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[1] D. K. Rangnekar, *op. cit.*

Table 16. CAPITAL FORMATION ON PERSONAL ACCOUNT

(*Amounts in Rs crores*)

	Lower limit	Upper limit
1948—49	336	414
1949—50	208	293
1950—51	261	354
1951—52	371	475

Sources: Table 15, cols. (5) and (6) and Table 13, col. (4).

These are considerably in excess of the identified monetary personal savings and therefore make our estimate of business saving seem plausible as well as our corrections to the DWP-estimate of total capital formation. These are yet far from having been fully tested, but it may be claimed for these estimates that they are better approximations than the estimates previously made.

PART II

ANALYTICAL

"Des nécessités, nulle part.
Des possibilités, partout."

Necessities? Nowhere. Possibilities? Everywhere.

— Lucien Febvre, *La Terre et L'Évolution Humaine — Introduction Géographique a L'Histoire.*

CHAPTER FOUR

THE PICTURE OF PROPORTIONS

AN ANALYTICAL DESCRIPTION OF THE STRUCTURE OF INDIAN ECONOMY

INTRODUCTORY

Towards the end of Chapter 3 we tried to give a notional picture of the relative contributions of business, government and personal savings to the total saving in the country. We now propose to present a broader set of relationships between the major industrial sectors of the economy by depicting a picture of the proportions of income and saving represented by these sectors. In this way the structure of the economy will be described.

There are five sections in the Chapter. In section 1, we briefly give the most general description of the level of the Indian economy in terms of the per capita national income. In section 2, we set out the income-to-income relations — the sectoral shares of national income. Here we delineate the major modern sector and the proportions of its sub-sectors [1]. Since this is the most dynamic sector of the economy, the relative rates of expansion in this sector are also studied. At the end of this section the place of profit income in the total national income is brought out. Comparative ratios for other countries are also given. The distribution of other types of income are not estimated. In section 3, we present the national saving-income ratios with some international comparisons. The sectoral saving-income ratios could be meaningfully determined only for corporations, a discussion of which is postponed for the sixth chapter. In section 4, we give the sectoral saving ratios (savings of sub-sectors as percentage of business sector, and savings of each sector as percentage of total national saving), also with some international comparisons. In section 5 we summarise the main points.

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[1] Some of these proportions have been derived in terms of total productive capital. Capital coëfficients in the public and private sectors have also been given *en passant*.

I. THE LEVEL OF THE ECONOMY

The size of the country is large both in terms of area and in terms of the number of inhabitants [1]. But the level of the economy is low. The per capita national income is the best single measure of the level of a country's economic development and it indicates a very low level of the Indian economy. There has been some rise during the post-independence decade or so, but the absolute level remains pitifully low. Witness Table 17 below:

Table 17. PER CAPITA NATIONAL INCOME OF INDIA, 1948—56

Year	Amounts (Rupees) At current prices	Amounts (Rupees) At 1948—49 prices	Index number at constant prices (1948—49 = 100)
1948—49	247	247	100.0
1949—50	254	249	102.0
1950—51	265	246	102.3
1951—52	274	250	105.2
1952—53	266	257	109.4
1953—54	281	269	116.0
1954—55	254	272	118.8
1955—56	261	274	121.2
1956—57	294	284	127.3

Source: CSO; vide RBIB, May 1958, p. 624.

In terms of U.S. dollars the average per capita income is little more than $ 56. Most of the high-income countries have 8 to 15 times as much, while the per capita income in the U.S. is almost 30 times as much. It is not necessary to make a detailed comparison with the per capita national income of the high-income countries [1]. It may be of some interest to see the relative position of India among the fellow countries of South-East Asia:

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[1] The area is some 1.3 million square miles and the population is 361 million by 1951 census (382 million by projecting for 1955). The area of the Indian Union is more than 13 times that of the United Kingdom; and Indian population numbers a little more than 7 times that of the U.K. Correspondingly, the Indian area is 6 times that of France and the population 9 times (taking the mid-year estimates of population for 1955), see *Statistical Yearbook 1956*, United Nations.

Table 18. PER CAPITA GROSS NATIONAL INCOME IN SOME SOUTH-EAST ASIAN COUNTRIES

(Amounts in Indian rupees)

Country with year		Amount	Country with year		Amount
Malaya	(1952)	1,360	Indonesia	(1951—52)	290
Ceylon	(1949)	520	Pakistan	(1952—53)	245
Thailand	(1952)	308	Burma	(1951)	228
India	(1951—52)	298			

Source: Dragoslav Abramovic (of the Economic Staff of the IBRD without representing the views of the IBRD), *Postwar Economic Growth in Southeast Asia* (Mimeographed, October 10, 1955).

2. THE PRINCIPAL ECONOMIC SECTORS

2.1 National income by industrial origin

We set out in Table 19 (see next page) the relative contributions made by the various sectors and sub-sectors of the economy to the national income. The percentage of the working force engaged in each sector is also shown.

2.2 Relative places and productivity of the non-modern and modern sectors

The first thing that stands out is the preponderance of the non-modern sector in terms of columns (3) and (4) both. More than 74 percent of the national income is generated in the non-modern sector [2] employing some 85 percent of the total working force.

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[1] The most well-known reference is the UN publication, *National and Per Capita Incomes, Seventy Countries. 1949* (ST/STAT. SER. E/1).

More uptodate figures are given in a table showing Figures of Per Capita Income, Rate of Growth of GNP, Investment, and Capital-Output Ratio in Selected Countries, 1945—54, by J. H. Adler, "World Economic Growth — Retrospect and Prospects", *The Review of Economics and Statistics*, August 1956.

[2] Corporate, foreign and government enterprises comprise the modern sector.

Table 19. NATIONAL INCOME BY INDUSTRIAL ORIGIN, PERCENTAGE DISTRIBUTION — AVERAGE OF 1948—55

With percentage of total working force engaged in the respective sectors and sub-sectors in 1951

Sectoral breakdowns (by groups)	Nature of the sector[1]	Sectoral income as % of national income	Working force engaged as % of total working force
(1)	(2)	(3)	(4)
1. Agriculture, forestry & fishery	Non-modern	48.7	70.0
2. Small enterprises	,,	9.8	8.0
3. Commerce & transport outside modern sector	,,	15.0	6.7
4. Mining[2] & factories	Modern	7.6	2.2
5. (a) Communications	,,	3.1	.8
(b) Railways	,,		
(c) Organized banking & insurance	,,		
6. (a) Professions & liberal arts	Intermediate	5.2	4.5
(b) Govt. services (administration)	Modern	4.8	.9
(c) Domestic services	Non-modern	1.4	2.0
(d) Others (House Property)	Mostly non-modern	4.4	Not comparable in terms of working force

[1] Classified according to the technique of production and method of organisation.
[2] Part of mining can be considered non-modern.

For sources and bases of computation, see Appendix V.

The modern sector of the industrial type (items 4 and 5) contributes only a little more than 10 percent[1] of the national income. It must be noted, however, that the share of this sector shows an increasing trend, rising from some 10 percent in 1948 to a little over 13 percent in 1955. The trend seems to have been accelerated from the year 1954[1].

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[1] Taking a simplified view and without raising the question of capital employed, and so on.

The second thing that is higly significant is the relative productivity[2]. 70 percent of the total working force that is engaged in agriculture and allied activities produces some 49 percent of the national income. The situation improves in the case of small enterprises, 8 percent of the working force producing some 10 percent of national income. Commerce and transport outside the modern sector enjoy a better position, and mining and factories a still better one. Modern communications, railways and organised banking and insurance together enjoy nearly the best position. Significantly enough, government services absorb[3] the highest share of the national product relative to the proportion of total working force engaged.

2.3 Relative productivity and saving possibility

The significance of this question of relative productivity (and income) can be broadly linked to the question of saving.

It may be recalled that agriculture in India, what they would call farming in the West and Westernised countries, is not an enterprise at all[4]. No detailed description of the mode of agriculture is needed to prove that; a juxtaposition of its shares in total national product and of the total working force employed is enough[5]: The ratio of the latter to the former is 1.4 : 1. Next, we have the small enterprises. We have seen that these are not in a position to save. It is interesting that the ratio of working force engaged in this sub-sector and the ratio of national income generated bear almost an one-to-one relation; that is, 8 percent of working force here produces 9.8 percent of national income — a relation of 1 : 1.2. We have shown in our estimate of savings of unincorporated enterprises that commerce and transport outside the modern sector and the unincorporated part of mining and factories mainly account for the saving made by unincorporated enterprises. It is significant that the corresponding (labour) productivity ratios are respectively 1 : 2.2 and 1 : 3.5. The latter of course includes the most modern corporate enterprises also, so that the actual ratio for the unincorporated part of mining and factories would be lower.

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[1] See Appendix V (C).

[2] Taking a simplified view and without raising the question of capital employed, and so on.

[3] The words "production" in certain other cases and "absorpotion" in this case are not used arbitrarily. It follows from the method by which national income in India has been estimated, namely, a combination of (and not counterchecking by) product and income approaches.

[4] See *supra*, § 2.3.3.

[5] N.V.A. Narasimham's statement, "farm incomes . . . are *essentially* entrepreneurial in character *though their marginal propensity to save* (*0.04*) *is relatively small*," in *A Short Term Planning Model for India* (North Holland Publishing Company — Amsterdam 1956, p. 21 — our italics), is arrant nonsense even on his own showing. The average Indian farming activity neither bears the uncertainties of the market, nor performs the Schumpeterian innovation, so that on neither definition could it be called entrepreneurial.

Analysis of the other items could be made in a similar vein, but we stop here since they are not of a direct interest to our subject.

2.4 The major business sectors

In Chapter 2 we made three principal sub-divisions of the business sector — namely, the unincorporated enterprises, the corporate enterprises (joint-stock companies), and the foreign enterprises. The business sector was taken for granted to be the private sector of the economy as opposed to the public or government sector. This limited approach had served to focus attention on our immediate purpose which was to look for sources and methods of estimating business saving, a task that constituted our major effort in Chapter 3. Now that we are attempting to give a general picture of the entire economy covered, for instance, in Table 19, we must identify the business sector and indicate its broader relationships.

In Table 19 we have classified the sectors as modern, non-modern, and intermediate. A counterpart of the same classification can also be observed in the group of activities we have broadly termed "business". For instance, the activities of the rural handicraftsman who works for the market and for profit, are non-modern [1], while those of a Bombay cotton mill are obviously modern. There are naturally intermediate forms also.

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[1] Industrial and entrepreneurial activity falling in the non-modern sector has been generally termed unincorporated enterprise.

By "business" we have broadly meant an entrepreneurial type of activity working for profit. It is thus that we have associated it with the private sector of the economy.

If, however, we ask what type of *productive operations* these business activities carry on by industrial classification, we find that exactly the same activity may be carried on by a private individual or a limited liability company belonging to the private sector of the economy, and by a government department or a public corporation, side by side. The Tata Iron and Steel Factory and the Durgapur Steel Project (when completed) are not very different in the nature of their physical productive activity. In fact, as we shall presently see, a very substantial part of the industrial and other modern productive activities is carried on by the government or public authorities[1].

Let us proceed to describe its place step by step with reference to Table 19.

2.5 The modern enterprises sector and its sub-sectors

With the broader interpretation of enterprise, we can clearly say that items 2 to 5, inclusive, are enterprises[2]. Of these, Nos. 2 and 3 (small enterprises, and commerce and transport outside the modern sector) lie outside the modern sector. Items 4 and 5 constitute modern enterprise, and as we have mentioned earlier, contribute only 10.7 percent of the national income. However, the focus of our interest lies in this limited sector.

This modern enterprises sector can be subdivided into the public sector and the private sector. In terms of contribution to the domestic product, the position is shown in Table 20 (next page).

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[1] This is true of almost all recently developing countries.

[2] Major part of forestry, under item no. 1, which is state-owned could be called enterprise by the broader definition. But its share is negligible, being less than 0.7 percent of the national income. A very small part of 6 (a), namely that of medical and legal professions, could also be called enterprises.

Table 20. INCOME GENERATED BY THE MODERN ENTERPRISES SECTOR AS PERCENTAGE OF NET DOMESTIC PRODUCT

	1948—49	1949—50	1950—51	1951—52	1952—53	1953—54	1954—55	Average 1948—54
Private	7.1	6.7	6.5	7.4	7.4	6.8	8.6	7.3
Government	2.8	3.0	3.0	3.2	3.1	3.0	3.7	3.1
Modern enterprises sector	9.9	9.7	9.5	10.6	10.5	9.8	12.3	10.4

Source: ENI. Details of calculation are shown in Appendix VI.

2.6 Shares of public and private enterprises in the modern enterprises sector

Taking the incomes generated by the government enterprises and the modern private enterprises as percentage of the incomes generated by the modern enterprises sector only, the picture is as follows:

Table 21. GOVERNMENT ENTERPRISES AND MODERN PRIVATE ENTERPRISES AS PERCENTAGE OF MODERN ENTERPRISES SECTOR

— By incomes generated —

	1948—49	1949—50	1950—51	1951—52	1952—53	1953—54	1954—55	Average 1948—54
Government enterprises	28.3	30.9	31.6	30.2	29.5	30.6	30.1	29.8
Modern private enterprises	71.7	69.1	68.4	69.8	70.5	69.4	69.9	70.2
Modern enterprises sector	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Derived from Table 20.

Thus, if we consider only the modern enterprises sector, we find that some 30 percent of the income generated by the modern enterprises sector was contributed by the government sector, and the rest, i.e., about 70 percent, was contributed by the private sector.

2.7 Relative shares of capital employed

In this connection, it is worth noting that the First Five Year Plan (FFYP) gave a rough estimate of the gross fixed assets and working capital in the public (government) enterprises sector approximately for the year 1950 and a comparable estimate of the total productive capital including depreciation for the privately owned modern enterprises sector. This is worked out in Table 22:

Table 22. RELATIVE POSITION OF PUBLIC AND PRIVATE MODERN ENTERPRISES IN TERMS OF GROSS PRODUCTIVE CAPITAL AS GIVEN BY THE FFYP FOR THE YEAR 1950

	Rs crores
1. Public enterprises	1,336
2. Modern private enterprises	1,472
3. Total	2,808
4. *(1) as % of (3)*	*47.6*
5. *(2) as % of (3)*'	*52.4*

For further breakdowns see Appendix VII.
Reference year is not exactly calender year but overlaps into 1951 also.

A slightly better approximation can be made with the help of figures of net productive capital in constant prices that we work out in Appendix IX in order to ascertain the relative rates of expansion of the two sectors. Here, in Table 23, we show the relative positions of the two sectors for the years 1950, 1955 and 1960 worked out on the basis of net productive capital expressed in 1949 prices.

Table 23. RELATIVE POSITIONS OF PUBLIC AND PRIVATE MODERN ENTERPRISES IN TERMS OF NET PRODUCTIVE CAPITAL, 1950, 1955 AND 1960*

(*Amounts in Rs crores, 1949 prices*)

Sector/Year	1950	1955	1960*
1. Public enterprises	879	1,885	3,493
2. Modern private enterprises	854	1,023	1,784
3. Total	1,733	2,908	5,277
4. (*1*) *as* % *of* (*3*)	*50.8*	*64.8*	*66.2*
5. (*2*) *as* % *of* (*3*)	*49.2*	*35.2*	*33.8*

* According to the revised plan targets; considered realisable.

Source: Appendix IX.

We see that already in 1950 the public sector was slightly larger than the modern private sector, but the difference was not very substantial. On the other hand, at the end of the First Plan period the relative position was substantially altered, stabilizing itself thereafter for 1960. To this aspect we return in the next sub-section on relative rates of expansion.

We saw in Table 21 that income generated by the modern private sector was more than double that generated by the public sector during 1948—54. This implies that overall capital coefficient in the private sector is much lower than that in the public sector. In fact, for the year 1950 it should be less than half. This is confirmed in Table 24.

The result accords with common sense. Capital coefficient in the government sector is much higher because it includes many fields of investment which are in the nature of social overheads; besides, two major items, namely, railways and irrigation works including multipurpose river valley projects, are well known for their highly capital intensive character. The overall capital coefficient in India has also been found to be lower than that in high-income countries.

Table 24. CAPITAL COEFFICIENTS IN PUBLIC AND MODERN PRIVATE SECTORS, BY GROSS CAPITAL AND NET CAPITAL, 1950—51

	Amounts in Rs Crores				
	Total capital (1950—51)		Income produced (1951—52)	*Capital coefficients*	
	Incl. depreciation	Excl. depreciation (1949 prices)		*(1)* ÷ *(3)*	*(2)* ÷ *(3)*
	(1)	(2)	(3)	(4)	(5)
Public enterprises	1,336	879	320 [a]	*4.2*	*2.3*
Modern private enterprises	1,472	854	740 [b]	*2.0*	*1.2*
Total	2,808	1,733	1,060	*2.6*	*1.6*

Sources: Col. 1. FFYP. p. 32.
Col. 3. ([a]) Directly from CSO, ENI 1948—49 to 1955—56, Table 3.
([b]) Worked out as shown in Appendix VIII.

2.8 Relative rates of expansion

It is useful to determine the rates of expansion of the public and the (modern) private sectors. The difficulties of the task are many. We must take comparable figures of capital. We must also express the values in constant prices. This involves the use of different deflators for fixed assets and working capital since we are operating with productive capital. The more detailed the breakdowns the better the accuracy. We can attempt only a rough approximation. The method followed and the calculations are fully described in Appendix IX. We found it more appropriate to work with net capital figures than with gross figures which are used by the FFYP in a very arbitrary way indeed. The result is brought out in Table 25 on next page.

We have included the planned targets of the Second Plan also. It shows very great expansion targets indeed. Even the achievements by 1955 were not small. During 1950—55 the rate of expansion in the public sector was far higher than that of the modern private sector.

Table 25. INDEX SHOWING THE INCREASE IN NET PRODUCTIVE CAPITAL IN THE PUBLIC & MODERN PRIVATE SECTORS, 1950, 1955, AND PLANNED TARGETS FOR 1960—61

	1950	1955	1960—61
1. Total modern sector	100	168	328 (305)*
2. Public sector	100	215	444 (398)*
3. Private sector	100	120	209

Method, sources & calculations: See Appendix IX

* Figures within brackets are corrected for price rise and the pruning of the plans for the public sector.

The First Plan period was at best a period of subdued animation for the modern private sector. But the Second Plan has given a large scope to the private sector. Judging by recent trends it appears that this scope is being further enlarged, not reduced. We shall not stop to examine this question and wander farther afield. Sufficient has been said to stress the point that the picture of proportions obtaining in the modern sector is an especially changing (dynamic) picture at the present time.

2.9 Relative position and expansion of the foreign sector

We have already worked out the position of the foreign sector vis-a-vis the modern private (Indian) sector in Table 8. We saw that in 1953 they bore a relation of 29 : 71. Due to limitations of data, it has not been possible to work out comparative ratios for other years. The RBIB [1] has recently published figures of non-banking foreign business investments in India for 1948, 1953, 1955 and 1956 [2]. In crores of rupees, these are respectively 256, 403, 470 and 506 [3]. But these figures carry the defects that have been pointed out in § 3.2. And moreover, it is not possible to express these in constant prices to judge the expansion of this sector on a basis comparable to the one we studied in Table 25. At least one noted Indian economist has tried to show that the rate of expansion of the foreign sector was tending to far exceed the rate of expansion of the Indian private sector (modern) [1]. But that was before 1955 when the rate of expansion of the Indian private sector (modern) was indeed very slow. On the other hand, since 1955 its expansion has been speeded up as we see in Table 25. However, there are indications that foreign investments are being speeded up too. We are not in a position to embark upon the enterprise of making an exact comparison of the rates of expansion of the two.

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[1] September 1958.

[2] As on June 30, 1948 and on December 31 for all other years.

[3] *Ibid*, p. 1017. For detailed breakdowns see *infra*, Table 47, page 156.

One thing is certain. The foreign sector occupies less than 15 percent [2] of the total modern sector, i.e., of the private and public sectors combined. The rate of expansion of the public and private Indian (modern) sectors combined over 10 years is going to be about 300 percent by 1960. A properly deflated figure of foreign investment would in all probability show a lower rate of expansion than that.

2.10 Share of profit in the net domestic product at factor cost

We are giving the sectoral shares of profits in the net domestic product at factor cost in Table 26 on next page. For the period under observation (1948—55) there was not a very great difference between the national income and the net domestic product at factor cost, the latter being slightly higher than the former.

It is to be noted that the profits of the modern private sector constitute only 1.6 percent of the national income, and together with the government enterprises and foreign enterprises sector, no more than 2 per cent; while those of the unincorporated enterprises are 14 percent. However, it must be pointed out that the income of unincorporated enterprises is the income of the proprietor employers and independents. This means that any income attributable to them as their own employee-income has not been deducted. Pure profit could be obtained only after such a deduction, but the odds against such a computation are rather heavy, and therefore such a refinement is generally avoided. To gain an idea of the effect of such an operation, we shall have to reduce the

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[1] Prof. K. N. Raj, "Model-making and the Second Plan", *Economic Weekly* (Bombay), January 26, 1955.

[2] Our rough calculation for the year 1953 actually shows a ratio of 11.7 percent.

Table 26. PROFITS AND NET DOMESTIC PRODUCT AT FACTOR COST, INDIA, 1948—55 (BY SECTORAL BREAKDOWN)

	(Amounts in Rs. Crores)
1. Net domestic product at factor cost	76,820
2. Profits of corporate sector	1,246
3. Profits of unincorporated enterprises	10,747
4. Retained profits of foreign enterprises [1]	99
5. Operating surplus of govt. enterprises	253
Total Profits	12,345
6. *(2) as % of (1)*	*1.6*
7. *(3) as % of (1)*	*14.0*
8. *(4) as % of (1)*	*0.1*
9. *(5) as % of (1)*	*0.3*
Total Profits as % of NDP	*16%*

[1] Only the figure of retained profit has been used since it remains within the country. Profits of foreign enterprises, however, are much larger — something like 417 crores for the period 1948—55, which is about 5 percent of India's national income over the period under consideration.

For sources, methods and a profit series of foreign enterprises see Appendices X and XI.

income of unincorporated enterprises by more than half [1]. Suppose that this income is reduced to Rs 5,000 crores. We then find that the place of the total of profit income of all types shrinks to less than 9 percent of national income and that of unincorporated enterprises to something like 6.5 percent. Absolute incomes of others remain the same, but their relative positions improve vis-a-vis the position of unincorporated enterprises.

It is of some interest that the share of 14 percent compares with the shares of unincorporated enterprises (including farm income and professional income)[1] in at least two high-income countries, namely, U.K. and U.S.A. Comparative figures are presented in Table 27.

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[1] Average annual per capita income is $\frac{10{,}747 \text{ crores} \div 0.52 \text{ crores}}{8}$ Rs 2584. At least a little more than Rs 1300 can be considered average employee income of these employers and self-employed persons.

Table 27. PROFITS IN RELATION TO NATIONAL INCOME, 1950—55 U.K., U.S.A. & INDIA

	U.K. (Amounts in £ billion)	U.S.A. (Amounts in $ billion)	India (Amounts in Rs billion)
1. Income of unincorporated enterprises	8.00	234.35	82.97
2. Corporate profits before tax	11.66	230.00	9.67
3. Total profits {(1) + (2)}	19.66	464.00	92.64
4. National income	78.08	1,726.81	591.20
5. *(1) as % of (4)*	*10.3*	*13.6*	*14.0*
6. *(2) as % of (4)*	*14.9*	*13.3*	*1.7*
7. *(3) as % of (4)*	*25.2*	*26.9*	*15.7*

1 billion = 1 milliard = 1 abja or 100 crores (Indian).

Sources: 1. For U.K.: (1) & (4) taken from U.N. Stat. Papers Series H No. 10; & (2) taken from the Blue Book on National Income 1955, 1956 (See the relevant Table in our Chapter 5).

2. For U.S.A.: (1) & (4) taken from U.N. op. cit.; & (2) taken from *Statistical Abstract of the United States 1957.*

3. For India (1) taken from our estimate in Table 10 (also Table 26); (2) Appendix X gives the method of estimation; (4) taken from ENI.

This again brings into focus the pitifully low share of profits of the modern enterprise sector.

It should be noted of course that the close resemblance of the share of unincorporated enterprises in India to that of the U.S.A. is largely formal. The business practices of the unincorporated enterprises in the high-income countries are modern compared with the antiquated practices of the unincorporated enterprises in India. The corporate sector in India also is not as highly modern — only some of the leading corporations are — as that in the high-income countries; but the comparison is slightly less unfavourable.

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[1] Farm income and professional income in India have been considered as lying outside the business sector and hence are excluded from unincorporated enterprises.

3. THE SAVING-INCOME RATIO

3.1 Annual ratios, India 1948—53

Since there exists a deliberate attempt to step up the savings of the country, we can expect that saving will show a rising trend, both absolutely and as a ratio of national income. We therefore consider it important to show the annual positions for the years for which we have been able to offer corrected estimates of national capital formation.

In Table 28 we present the net domestic capital formation as a ratio of net domestic product at factor cost as well as national saving which is equal to the net domestic capital formation minus the nation's deficit (or plus the surplus) on current international account, as a ratio of national income, which again is equal to the net domestic product at factor cost minus the nation's deficit (or plus net income from abroad) on current international account.

Table 28. CAPITAL FORMATION AND SAVING AS RATIOS OF NET DOMESTIC PRODUCT AND NATIONAL INCOME, INDIA 1948—53.

	I. Capital formation as percentage of net domestic product at factor cost		II. Saving as percentage of national income (Saving = Net domestic capital formation *minus* the nation's deficit on current international account)	
	lower limit (1)	upper limit (2)	lower limit (3)	upper limit (4)
1948—49	7.9	8.8	5.2	6.1
1949—50	7.6	8.7	7.0	8.2
1950—51	8.1	9.2	8.8	9.8
1951—52	10.2	11.2	8.4	9.5
1952—53	7.7	8.8	8.5	9.5
1953—54	8.0	9.0	8.6	9.7
Average 1948—53 (6 years)	8.3	9.3	7.9	8.8

For absolute figures and sources see Appendix XII..

It may be noted that during 1952—53 columns (1) and (2) show a fall. It is exaggerated here because of the decline of inventories. The situation improves the following year, and if we are to judge by the inventory position as shown in the RBI company accounts of sources and uses of funds, it improved still more during the years after that [1].

One important thing stands out, however. If the assumptions on which we have based our corrections to the DWP estimates of capital formation are not unrealistic, and if the official estimates of net domestic product are not under-estimates, the ratio of net domestic capital formation (and of saving) to net domestic product at factor cost (and to national income) for the period 1948—53 as a whole was substantially higher than the currently accepted estimates suppose. The DWP estimate would place it at 6.3 percent whereas it must have been at least 8.3 percent.

Savings during more recent years are generally assumed to have been higher.

3.2 An international comparison of the saving-income ratio

To gain some idea of the position of some other countries belonging to both low-income and high-income groups, we give the relevant ratios in Table 29 on next page.

It is a pity that the same source does not contain similar data for other South and East Asian countries like Ceylon, Malaya, Indonesia, etc, and omits altogether from the picture the rapidly developing mainland of China. From all available accounts it appears — and it stands out in the above-mentioned Table also — that Burma has an exceptionally high rate of capital formation for a low income country. Similarly, the rates for Belgium and U.K. are rather low for high-income countries. This suggests that a straight comparison of such ratios may sometimes be misleading. We cannot here work out a strictly comparable set of figures, but we may suggest that at least for the newly developing countries a separate set of figures should be shown indicating the growth of reproducible capital goods. It is quite possible that a far larger relative outlay on housing and a smaller outlay on reproducible capital

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[1] RBIB, September 1957, p. 853.

Table 29. SAVING-INCOME RATIOS IN SOME SELECTED COUNTRIES, AVERAGE OF 1950—55

Country	Net capital formation without deducting deficit on current a/c (as % of net domestic product) (1)	Net capital formation minus deficit on current a/c (or plus surplus) (as % of national income) (2)
Belgium	8.4	.
Luxembourg	19.7	.
Netherlands	.	16.7
Canada	17.5	.
U.S.A.	11.7	.
U.K.	7.9	7.5
Japan	24.9	23.1
Burma	17.5	13.7
Philippines	1.9	3.7
India (1948—53)		
at the lower estimate	8.3	7.9
at the upper estimate	9.3	8.8

Source: All countries except India and the Netherlands worked out from U.N. *Stat. Pap.* Series H. No. 10 (N.Y. January 1957). For India see Table 28 and its Appendix. Netherlands figure is for the years 1950—54 received from the Central Planning Bureau.

goods in Burma gives a rather misleading promise of her development vis-a-vis the development potential of, say, India.

A set of comparative figures of gross national saving rates covering some of the South-East Asian countries was worked out by Mr. Dragoslav Avramovic, a member of the Economic Staff of the IBRD. We reproduce it in Table 30 on the opposite page. A comparable estimate for India is provided by us.

We see here that the performance of Burma is again high in comparison with other South-East Asian countries. Malaya's performance is also high, coming as a close second to Burma while her (Malaya's) per capita national income[1] is the highest in the region. India ranks a tolerable third in respect of the gross saving ratio.

Table 30. GROSS NATIONAL SAVING AS PERCENTAGE OF GROSS NATIONAL PRODUCT, SELECTED S. E. ASIAN COUNTRIES, SELECTED YEARS 1938—1953.

Country		1938	1947	1948	1949	1950	1951	1952	1953	*Post war Average*
1. Burma		22.9	3.4	7.5	12.3	10.7	16.1	20.3	22.9	13.3
2. Ceylon		1.1	-3.3	5.6	6.3	9.8	11.7	0.9	5.0	5.1
3. Indonesia		n.a.	n.a.	n.a.	n.a.	n.a.	4.5	-1.0	n.a.	1.75
4. Malaya		n.a.	7.4	7.0	6.3	19.2	17.6	11.0	6.4	12.1
5. India	L.L.	n.a.	n.a.	9.7	9.3	10.0	10.5	9.5	9.8	9.8
	U.L.			10.8	10.7	11.3	13.6	10.7	11.1	11.4

Sources: For countries 1—4, see Dragoslav Avramovic, Member, Economic Staff, IBRD, *Postwar Economic Growth in Southeast Asia* (mimeographed, October 10, 1955) Circulated by the RBID but disavowing its authority, p. 17, Table XII.

For India, see Appendix XIII. L.L. means lower limit; U.L. means upper limit.

3.3 The rate of saving and economic growth

It is appropriate to close this section with a general comment on the saving rates of high-income countries and low-income countries.

Note the divergent saving-income ratios (Table 29) of some high-income and low-income countries. It is obvious that any straight comparison of such ratios may be misleading in certain cases. We have mentioned that the ratios are not always strictly comparable. While much work still remains to be done in order to get more strictly comparable ratios, certain broad conclusions can and must be drawn from the available ratios.

The rate of saving together with the over-all capital coëfficient in a country and its rate of population growth determine the rate at which its economy grows. With the same rates of saving and population growth in two countries, any difference in the rates of growth in the two countries will be determined by the difference in the capital coëfficient. It is reasonable to assume that the over-all capital coëfficient in the low-income countries of South-East Asia is generally lower than that in the high-income countries. It follows, therefore, that at the same saving rate, the rate of growth is likely to be higher in the former group of countries after due allowance is made for the difference in the rate of population increase. Concretely, this means that taking the ratios set out in Table 29 at their face value, the rate of economic growth of Burma was higher during the period 1950—55 than that of Canada during the same period, since the rates of saving in the two countries were identical. This does not mean — and this is the point we want to drive home — that the economic *prosperity* of Burma was higher than that of Canada, although Canada's population increased at the rate of nearly 2 percent during 1950—55 [1]. Prosperity refers to the absolute level of an economy, measured, for instance, by the per capita output or income. Thus, whatever the present rate of growth in the low-income countries, their absolute level of economic prosperity will remain behind that of the high-income countries for a long time to come.

It is interesting that in most of the high-income countries, a net saving rate of between 10 and 15 percent of national income *over a long period* was sufficient to raise the level of per capita income [2].

4. RATIOS OF SAVING TO SAVING

4.1 Ratios of components to total business saving

In Chapter 3, Table 11, we brought together our estimates of three components of business saving. Their percentage ratios can be brought out in Table 31 on the opposite page:

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[1] This rate is higher than the average annual increase in S-E Asian countries. But it should be noted that in countries where open and disguised unemployment are considerable, as in India, Burma, etc., an increase in population directly hampers economic progress, whereas in a country like Canada, increase in population is an important factor of economic progress.

[2] For an incisive discussion of the question see P. C. Mahalanobis, "National Income, Investment, and National Development" (Summary of a lecture delivered at the National Institute of Sciences of India, New Delhi, October 4, 1952. Reprint made available by the Indian Statistical Institute, Calçutta).

Table 31. SAVINGS OF INDIAN COMPANIES, FOREIGN ENTERPRISES AND UNINCORPORATED ENTERPRISES, AS PERCENTAGE OF TOTAL BUSINESS SAVING INDIA, 1948—55

Year	Total business sector	Indian companies	Foreign enterprises	Unincorporated enterprises
1948—49	100.0	12.4	3.5	84.1
1949—50	100.0	5.2	3.5	91.3
1950—51	100.0	9.3	3.5	87.2
1951—52	100.0	13.1	3.1	83.8
1952—53	100.0	5.1	3.2	91.7
1953—54	100.0	7.2	3.0	89.8
1954—55	100.0	9.1	2.7	88.2
1955—56	100.0	13.0	2.6	84.4
Average 1948—55	100.0	9.4	3.1	87.5

Source: Table 11.

The preponderance of the unincorporated enterprises stands out sharply.

4.2 Ratios of major components of national saving

Let us now present the picture of proportions obtaining between the three major components of total national saving, namely, business saving, government saving, and personal saving. Relegating the details of absolute figures, sources and method of estimation to the Appendix, we give in Table 32 only the percentages (see next page).

It is remarkable that while the levels of per capita income and saving are low, business saving accounts for a very large part of the country's capital formation. Savings of the modern business sector (corporations and foreign), however, form a very small proportion of the total — something below 6 percent. This of course reflects the even smaller place that the profits of the modern sector occupies in the national income, which is even less than 2 percent (see Table 26).

Table 32. BUSINESS SAVING, GOVERNMENT SAVING, AND PERSONAL SAVING AS PERCENTAGE OF NET DOMESTIC CAPITAL FORMATION, INDIA, 1948—53

Year/Sector	Business Saving				General Govt. saving	Personal saving
	Indian corporations	Foreign sector	Unincorporated sector	Total		
1948—49	6.3	1.8	43	*51*	*-3*	*52*
1949—50	2.6	1.8	46	*50*	*15*	*35*
1950—51	4.2	1.6	40	*46*	*17*	*37*
1951—52	5.1	1.2	33	*39*	*21*	*40*
1952—53	2.6	1.6	47	*51*	*15*	*34*
1953—54	3.4	1.4	42	*47*	*11*	*42*
Average 1948—53	4.1	1.5	41	*47*	*13*	*40*

Sources and computation given in Appendix XIV.

4.3 The position in high-income countries

No hard and fast rules can be laid down about what distribution of savings among the various sectors constitutes an "advanced" form of economy. The substance of this statement is supported by the differing distribution of savings of several high-income countries presented in Table 33 on opposite page. Only columns 1(a) and 2 are comparable to their counterparts for India in Table 32. Column 3 combines the shares of personal saving and savings of unincorporated enterprises.

We see how very different are the sectoral contributions in different countries (and we shall note presently that in any given country these shares may undergo secular changes). But one may perhaps venture a generalisation that in the highly industrialised capitalist countries a contribution in the neighbourhood of some 20 percent of the total saving may be a minimum norm for the corporate sector. Denmark and Luxembourg can be easily treated as different types of economies — with a preponderance of agriculture. Denmark has relatively more industry, but it is characterised by the cooperative instead of corporate form of organisation; Luxembourg has hardly any urban industry.

Table 33. SECTORAL SHARES OF SAVING IN SELECTED HIGH-INCOME COUNTRIES, 1950-55 (Average)

(Percentage of total saving)

Country/Sector	Corporations		General Government	Households and private non-profit institutions
	Private	Public		
	1 (a)	1 (b)	(2)	(3)
U.K.	70.4	—10.6	11.5	28.7
U.S.A.	22.3	25.3		52.4
Canada	24.1	2.8	30.1	43.3
Japan	16.9	31.6		51.5
Belgium (1950—53)	15.5	0.0	—18.0	102.7
Luxembourg (1952—55)	6.3	—	35.3	58.4
Denmark (1950—53	11.0		26.5	62.5

Source: Worked out from U.N., *Stat. Pap. Series H. No. 10* (January 1957). West Germany, Netherlands, Sweden & Switzerland not included because comparable figures are not available.

In India the small contribution of 6 per cent by the private corporate sector is also to be accounted for by the preponderance of agriculture — and moreover of the most unproductive sort.

For no other country except U.S.A., is the breakdown for unincorporated business available. From Goldsmith's monumental work already referred to earlier, the long-term ratios are brought out in Table 34 on next page.

We can make some comments on Tables 33 and 34.

First of all, restricting our attention to the corporate private sector alone we observe that there is a very great difference between the proportional contributions in post-war Britain and U.S.A. It is also noteworthy that the relative share of corporate savings to total savings in post-war U.S.A. is about the same as the long period average of that country, and only slightly more than that of the so-called long-run normal period average.

Britain is known to be going through the third cycle of her method of financing capital formation. The earliest phase of her industrial

Table 34. SECTORAL SAVING AS PERCENTAGE OF TOTAL SAVING U.S.A., 1897—1949

Period/Sector	Personal	Agriculture	Uncorporated business	Corporations (private sector)	Government
Normal period[1]	65.8	2.1	4.3	20.4	7.4
Whole period	119.7	9.4	7.1	22.4	—58.6

[1] 1897—1949 excluding 1917—1918, 1930—1933, 1942—45.

Source: R. W. Goldsmith, *op. cit.* Vol. I, Table S-8 p. 267.
We have separated agricultural saving from personal saving.

growth was characterised by the predominance of personal saving and personal enterprise (self-financing). Second phase: personal savings mobilised through public issues by corporations (jointstock companies); corporate enterprise. Third (present) phase: Internal financing of capital formation by corporations (profit retention), almost eschewing market floation of new stocks; — another phase of self-financing.[1]

Secondly, government saving has become an important element in post-war national saving in almost every country.

Thirdly, comparing with the Goldsmith estimates of long-term sectoral shares of U.S. savings, we find that for the whole period the contribution of unincorporated enterprises *including* agriculture was below 17 per cent, and for the "normal period" below 7 percent, whereas in post-war India unincorporated enterprises contribute more than 40 percent towards the nation's capital formation. On the other hand, both personal savings and corporate savings contribute far larger shares in the U.S.A. than they do in India. The differences in the shares of saving contributed by the private corporate sector in the two countries can be easily explained by the large size of the corporate sector (both relative and absolute) and the higher rate of retention practised by the U.S. corporations[2].

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[1] Cf. E. A. Radice's clear account in "The State and Investment", ***Studies in Capital and Investment*** (ed. G. D. H. Cole; published by Victor Gollancz Ltd, London 1935), pp. 296—99.

For a brief reference to the earlier two phases, see F. A. Hayek's historical note on "Saving" in his article in the *Encyclopedia of Social Sciences Vol. XIII.*

[2] The post-war corporate profit retention rates are again much higher in U.K., than U.S.A. (See *infra*, Chapter 6).

The corporate sector enjoys a much higher relative position in the U.K., than in the U.S.

The far larger share of contribution made by personal saving to the total national saving in the U.S. than that not only in India, but in most other countries cited, with the possible exception of Belgium, is perhaps best explained by an exceptionally high level of personal income, inequality of income distribution (the latter combined with the former, for in India the inequality is perhaps even greater, but it is on a low level of income), and reinvestment of dividend by private persons [1].

We can conclude this section by summarising our main finding. This is that while the absolute level of per capita saving and the national saving-income ratio are comparatively low in India, the relative contribution of unincorporated enterprises is very high; that of personal saving is fairly high; that of modern business sector (corporations and foreign) very low; and, that of government saving below that of most other countries cited, though not inconsiderable. It is useful to summarise the main figures. (see next page). We also add the sectoral saving-income ratios which we did not present in section 3 above.

5. BROAD CONTOURS OF THE PICTURE

Let us now re-touch and bring into relief the broad contours of the total picture that we have sought to depict in this chapter.

First of all, the level of the economy is low.

Secondly, this low level manifests itself in the sectoral contribution to the national income: an overwhelming majority of the working population — some 70 percent of the total working force — is engaged in an unproductive agriculture; every other sector, with the exception of domestic services, is more productive than agriculture.

Thirdly, saving capacities are found to correspond to the relative productivity of the sectors.

Fourthly, the basic picture of the sectoral proportions is going to hold for quite some time: the ongoing changes in the economy will

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[1] Some 30% of dividends were re-invested by dividend receivers in the U.S.A. during 1919—37. See M. Taitel, TNEC Monograph No. 12, quoted in J. Steindl, *Maturity and Stagnation in American Capitalism* (Basil Blackwel, Oxford 1952), p. 116. Another estimate (H. S. Dennison & others, *Toward Full Employment*, New York 1938, pp. 170—71) gives as much as 45% of total corporate dividends paid out in 1929 as saved.

Sectoral and national incomes, savings and saving-income ratios

Sector/Items	Income (Rs crores)	Saving (Rs crores)	Saving-income ratio (%)	Sectoral saving to NDCF (%)
	For the period 1948—53			
1. Business sector				
a. Corporations	537 [1])	207 [2])	*38.6*	*4.1*
b. Foreign enterprises	172 [3])	78 [2])	*45.3* [4])	*1.5*
c. Unincorporated enterprises	7,685 [5])	2,075 [2])	*26.7*	*41.1*
Total business sector	8,394	2,360	*28.1*	*46.8*
2. Rest of the economy [6]				
a. Government	4,799	673	*14.0*	*13.3*
b. Personal	44,357	2,012	*4.5*	*39.8*
Total for the Rest	49,156	2,658	*5.5*	*53.2*
3. Indian Economy [6]	57,550	5,045 [7])	*8.8*	*100.0*

[1] Profits after tax stepped up, plus 50 crores of concealed income identified.
[2] From Table 11.
[3] See Appendix XI.
[4] It may be noted that during the later two years (1954 & 55), the ratio fell sharply — to 31.5 percent of profit.
[5] From Table 10.
[6] Income figures from ENI, and saving figures from Appendix XIV. Figures for Personal sector have been obtained residually.
[7] The figure of net domestic capital formation (NDCF) taken at the mid-point of our lower and upper estimates.

affect this picture only very slowly. Great changes are, however, occurring within the relatively small modern sector as composed by private and public (government) enterprises. The place of foreign enterprises is found for the year 1953 to be 29 percent of the modern private sector (Indian+foreign) excluding all financial enterprises. The relative changes with respect to the foreign enterprises sector could not be studied [1]. A comparison of the relative rates of expansion of the public and private [2] sectors shows that the former has been expanding more rapidly than the latter, but the expansion envisaged for the private sector (including that already realised) is in itself very considerable for the period 1955—60.

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[1] It could not be studied by the more accurate method advocated by us in Chapter 3. However, uncorrected figures of RBI suggest that foreign investment has almost doubled in less than 8 years. See *infra*, p. 156, Table 47.

[2] Excluding branches of foreign firms.

Fifthly, profit type of income constitutes some 16 percent of national income. If we take profits of the modern private sector (corporations) only, its share is even below 2 percent. The corresponding shares in U.K. and U.S.A. during 1950—55 were 15 and 13 percent respectively.

Sixthly, the saving-income ratio in India during 1948—53 came to some 8 to 9 percent. This is lower than the rate in the high-income countries; lower also than that in at least two low-income countries of South-East Asia, but it is not as low as it is sometimes supposed[1].

Seventhly, business saving in India is the most important item in the national saving. During 1948—53 it constituted some 47 percent of the total national saving; personal saving contributed 40 percent, and government 13 percent. The contribution of the modern private business sector, however, was very small — below 6 percent — while the contributions of the same sector in U.S.A., Canada and Japan were respectively 22, 24 and 17 percent during 1950—55. The high share of 70 percent in the U.K. was exceptional even for a high income country. The relative contribution of unincorporated enterprises to total national saving is higher in India than that in the U.S.A. But one must remember that the absolute amounts involved are incomparably higher in the U.S.A. It nevertheless means that it is even more important in India to study more thoroughly the income and the saving habits of this sector than has hitherto been done.

Finally, we stress the fact once again that while the over-all picture of proportions in the Indian economy is relatively stable, including the place occupied by the modern sector, the relations obtaining *within* the modern sector are changing, and its own rate of expansion (as distinct from the rate of expansion of the economy as a whole) is quite rapid.

Many details of this modern enterprises sector, e.g., the proportions of private limited companies and public limited companies, the proportion of different industries, the size of the units, etc, have not been included in this chapter in order to avoid too much lop-sidedness. Our analysis of profitability that follows in the next chapter will relate to the private modern sector, and we shall more appropriately place some of these details in the introduction to that chapter.

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[1] The ratio will be at least 10 percent by 1960. See *infra*, p. 212.

CHAPTER FIVE

PROFITABILITY OF BUSINESS

1. INTRODUCTORY

1.1 Definition

Profitability is the ratio of profit to investment, the latter defined in several alternative ways [1]. Any study of profitability therefore requires a quantitative knowledge of both profit and investment. It is highly circumscribed by limitations of the availability of statistics in both these respects.

1.3 Restricted scope of study

It is customary to study trends (and fluctuations) of profit and profitability of business with reference to corporate business alone, primarily because the statistics are more readily available and more accurate than those for unincorporated enterprises.

For studying the trend and fluctuation of profit, this restriction probably does not matter much since profits of unincorporated enterprises generally run parallel to those of corporations. If anything, corporate profits are more important in business cycle analysis for generally they play a more influential role in shaping business expectations. Fluctuations of corporate profits are also generally more intensive [2]. But nothing very definite could be said about the relation between the *profitability* of the two types of enterprise. It is quite possible that profits of unincorporated enterprises as a ratio of the capital employed are in many cases higher than those of corporations, because many of the fields in which unincorporated enterprises operate are less capital-intensive [1] and sales efforts are also less expensive. On the other hand, a great many unincorporated enterprises eke out a marginal or even submarginal existence and there is therefore *a priori* reason to believe that a considerable part of the unincorporated enterprises is less profitable than most of the corporations. The fact is that we have hardly any factual evidence to say anything very definite. Even for a country like the U.S.A., Goldsmith repeatedly complains of a "scandalous ignorance of the financial situation and history of unincorporated business" [2]. To be sure, Friend and Kravis have recently made an interesting analysis of entrepreneurial income, saving and investment from data of Consumers' Survey and Bureau of Labour Statistics. Highly useful as it is, it also throws no light on the question of profitability of unincorporated enterprises [3]. It is in the U.S.A. that attention to this statistical leeway has been drawn by several authorities and some improvement is expected in the near future. A big development in this direction may be expected in India also. Meanwhile we are ignorant of the position in the unincorporated enterprises sector.

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[1] Paid-up capital, net worth, total capital employed, etc.

[2] Cf. J. Tinbergen, *Business Cycles in the United States of America, 1919—1932 Statistical Testing of Business Cycle Theories II* (League of Nations Economic Intelligence Service, Geneva 1939), p. 125.
Besides, Tinbergen found for the U.S. 1919 — 32 "a small lag of general profits behind corporation profits, and a trend difference, representing the growth of the corporation form of enterprise". *Loc. cit.*

In most of the high-income countries the statistics of corporate profits and investments are comparatively better explored. In India, even this work has to make much headway. In the present chapter we shall try to analyse the available material concerning the corporate sector alone. It must be emphasised, however, that for a country like India where the size of the unincorporated sector of business as a whole is far greater than that of the corporate sector (as we have shown in Table 27), collection of its data (and their analysis) is an urgent necessity.

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[1] On the other hand, corporate enterprises which are comparatively more capital-intensive in most cases (note, however, that it has been found that the handloom industry is not less capital-intensive than the mill industry), enjoy the advantages of largescale economies. Cf. Sargant Florence's three principles, viz., the principle of bulk transactions, the principle of massed reserves and the principle of multiples. — See P. Sargant Florence, *The Logic of British and American Industry. A realistic analysis of economic structure and government* (Routledge and Kegan Paul Ltd., London 1953), pp. 49—52 & ff.

[2] Goldsmith, *op. cit.* Vol. I, p. 103.

[3] See, Irwin Friend and Irving B. Kravis, "Entrepreneurial Income, Saving and Investment", *American Economic Review*, June 1957.Steindl cites many examples to support the contention that profitability is positively correlated with size, but they cannot be considered conclusive. We have evidence to the contrary also.

1.3 Two standpoints of viewing profitability

We shall begin by distinguishing two standpoints from which the profitability of corporations could be viewed, at least upto a certain point. These are profitability of investment and profitability of business.

a. The standpoint of the shareholder

The first is the standpoint of the shareholder or stock-investor (as distinct from the speculator [1]) who, though he shares the risks of enterprise — speaking of investors in common variable dividend stocks — primarily looks for a type of income which is akin to interest [2].

b. The standpoint of the firm

The second standpoint is that of the firm itself as the unit of business. It is true that the operating efficiency of the unit of business ultimately brings its benefits to the stock-investors. But nevertheless, upto a point the distinction remains valid and is often expressed in some of the operating ratios published in investors' guidebooks. The distinction is particularly important when the economist is analysing the profitability of business.

1.4 Ratios chosen for the present study

Business profit can be studied as absolute quantities or as ratios of investment. The latter, as we remarked, are sometimes more meaningful for analysis, though the former, besides being a means to arrive at the latter, also weighs in the firm's financial decisions. Our present preoccupation, however, is the study of ratios because it is the state of profitability in India that we want to investigate and see whether the level and the rate of corporate saving is influenced in any perceptible way by the state of profitability [3], and whether international differences in corporate saving rates can be explained by differences in profitability. [4]

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[1] A highly fruitful distinction between what may be called income-oriented stock-investors and speculative stock-investors is made by J. Tinbergen in "The Dynamics of Share-Price Formation", *The Review of Economic Statistics*, November 1939, p. 153.

[2] Cf. *loc. cit.*

[3] This question is finally investigated in Chapter 6. See *infra*, pp. 203—04.

[4] See *infra*, p.p. 193-197.

Since no one single ratio is satisfactory enough, profit and investment are often related in many variant forms. For instance, dividends may be related to paid-up capital; net profit to net worth, and so on. There are several ratios which are usually published to indicate the state (and the prospect) of profitability of business [1]. We have selected the following ratios for our study in this chapter:

1. Ratio of net profit to paid-up capital.
2. Ratio of net profit to net worth.
3. Ratio of gross profit to total capital employed.

These terms will be defined where necessary as we proceed to discuss these ratios in successive sections.

Because of the scarcity of profit data in India we were not able to choose a long period for study. The only period for which all the ratios are available is 1946—55.

The main sources are the Taxation Enquiry Commission Report 1953—54 and the Reserve Bank of India Bulletin, which give data for the overlapping periods of 1946—51 and 1950—55 respectively.

Great difficulty has been encountered in collecting comparable figures from some other important countries which would enable us to evaluate the relative profitability of Indian business.

Attempts have however been made to institute such a comparative evaluation in sections 6 and 7.

2. STRUCTURE OF MODERN PRIVATE SECTOR

The structure of the modern private sector is briefly described in four sub-sections that follow. The description is coloured by the ready

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[1] Cf. 13 items bearing on the financial and operating ratios published in Moody's Industrials (U.S.A.) since 1935: (1) Market price: Earnings per share (common) — Annual, High and Low; (2) Percent: Cash Dividend Yield on Common Stock; (3) Percent: Common Dividend to Earnings on Common; (4) Current Assets ÷ Current Liabilities; (5) Percent: Inventories to Total Current Assets; (6) Sales ÷ Inventories; (7) Sales ÷ Receivables; (8) Percent: Operating Net Income to Sales ("profit margin"); (9) Percent: Sales to Net Plant Value; (10) Percent: Operating Net Income to Net Plant Value; (11) Sales ÷ Average Number of Stores; (12) Percent: Annual Depreciation Charges to Cost of Plant; and (13) Percent: Net Earnings to Net Worth.

Table 35. DISTRIBUTION OF FACTORIES ACCORDING TO TYPE OF OWNERSHIP — WITH FIGURES OF CAPITAL, EMPLOYMENT AND OUTPUT CONTRIBUTED BY EACH TYPE, INDIA, 1953

Type of ownership	Factories from which information was received		Productive capital		Persons employed		Gross output		Value added by manufacture	
	Number	*Percent.*	Value Rs.crores)	*Per-cent*	Number (Lakhs)	*Per-cent.*	Ex-factory value (Rs.crores)	*Per-cent.*	Value (Rs.crores)	*Percentage*
Unincorporated sector										
Proprietary firms	1,379	*21.5*	13.6	*1.9*	0.5	*2.9*	32.8	*2.9*	4.4	*1.3*
Partnership firms	2,266	*35.4*	43.2	*5.9*	1.2	*7.7*	127.3	*11.3*	14.3	*4.3*
Corporate sector										
Limited Companies:										
Private	1,325	*20.7*	114.3	*15.7*	1.7	*10.4*	162.8	*14.5*	42.8	*12.8*
Public	1,223	*19.1*	536.8	*73.7*	12.5	*76.5*	782.9	*69.7*	266.9	*79.9*
Others	207	*3.3*	20.7	*2.8*	0.4	*2.5*	17.0	*1.6*	5.8	*1.7*
Total	6,399	*100.0*	728.7	*100.0*	16.3	*100.0*	1,122.8	*100.0*	334.3	*100.0*

Source: Census of Indian Manufactures, 1953 (Directorate of Industrial Statistics, Ministry of Commerce and Industry, Calcutta); Summary published as a *Supplement to the Indian Trade Journal*, March 31, 1956, pp. 38—39.

availability of data, but it will suffice to place in perspective the corporate sector and its different industries that will form the subject-matter of our study from section 3 on.

2.1 Relative position of the manufacturing industry in the corporate and unincorporated sectors

It is useful to give an indication of the relative position of the manufacturing industry covered by the Factories Act[1] in the corporate and unincorporated sectors. In Table 35 we show the distribution of factories according to ownership and their relative size and scale of operation. In contrast with the relatively small number of its units, the preponderance of the corporate sector in terms of capital, employment and output stands out sharp and clear. Again, within the corporate sector, the predominance of the public limited companies stands out almost equally sharply.

2.2 Size distribution of manufacturing units

The distribution of manufacturing units (covered by the Census of Manufactures) by size and the scale of operation of the size classes may be of some interest. This is brought out in Table 36 next page.

Let us consider the units employing less than 100 persons as small, those employing between 100 and 1000 persons as medium, and those employing above 1000 persons as large. We then find that some 77 percent of the units are small, some 16 percent are medium, and only about 7 percent are large. But these 7 percent of the units account for 62 percent of the productive capital, 70 percent of employment, 60 percent of gross output and 74 percent of value added by manufacture. It is reasonable to assume that these large units belong almost entirely to the corporate form of organisation.

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[1] The Factories Act of 1948 defines factories as those units of production which employ between 10 and 20 persons *and use power*, and all those units which employ 20 or more persons with or without using power, (vide Rangnekar, *op. cit.* p. 89n.). But the Census of Indian Manufactures covered only those factories that employed 20 or more workers *and* used power (as in section 2(j) of the Indian Factories Act, 1934. (vide, *Fifth Census of Indian Manufactures*, p. 3; also *Stat. Abs.* 1953—54, p. 655).

Table 36. DISTRIBUTION OF FACTORIES ACCORDING TO SIZE — WITH PERCENTAGES OF CAPITAL, EMPLOYMENT AND OUTPUT — INDIA 1953

Size class (by number of persons employed)	Factories from which information was received		Productive capital		Employment	Gross output	Value added
	Number	*Percent*	Value in crores	*Percent*	*Percent*	*Percent*	*Percent*
Below 20	1,474	*23.0*	12.71	*1.7*	*1.0*	*1.0*	*0.3*
20—49	2,357	*36.8*	32.91	*4.5*	*4.8*	*6.8*	*2.5*
50—99	1,121	*17.5*	32.34	*4.4*	*4.7*	*6.9*	*2.9*
100—249	565	*8.8*	49.22	*6.8*	*5.4*	*7.9*	*4.4*
250—499	222	*3.5*	51.66	*7.2*	*4.8*	*6.8*	*5.3*
500—999	207	*3.2*	95.72	*13.1*	*9.4*	*10.1*	*10.3*
1,000—1,999	221	*3.5*	133.60	*18.3*	*20.0*	*18.8*	*21.1*
2,000—4,999	198	*3.1*	193.60	*26.5*	*36.1*	*28.1*	*34.3*
5,000 and above	35	*0.6*	126.90	*17.5*	*13.8*	*13.6*	*18.9*
Total	6,399	*100*	728.65	*100*	*100*	*100*	*100*

Source: Same as Table 35.

2.3 Size distribution in the corporate sector

It is appropriate to give some idea of the size distribution in the corporate sector with which we are more directly concerned. The distribution of paid-up capital is available in manufacturing and non-manufacturing groups with further industrial breakdowns. For gaining a general impression we do not go into those. The distribution chosen by us is given in Table 37.

The relative smallness of the number of the larger units and their major share in the total paid-up capital stand out. The preponderance of large units in terms of total paid-up capital is much greater in the case of public limited companies than in the case of private limited companies.

Table 37. NUMBER AND PAID-UP CAPITAL OF PUBLIC AND PRIVATE LIMITED COMPANIES AT WORK DURING 1951—1952

— By Size —

Size class (by paid-up capital) (Rs. lakhs)	Public limited Companies		Private limited Companies	
	Number of units •	Paid-up Capital (Rs. crores)	Number of units	Paid-up Capital (Rs. crores)
1 and below	4,865	16.72	8,283	24.42
1 to 5	2,413	62.70	2,390	61.50
5 to 10	732	57.02	326	26.18
10 to 50	880	202.21	247	54.91
50 to 100	132	95.28	21	15.79
Above 100	67	163.88	21	38.17
Total	9,089	597.81	11,288	220.97

ource: TEC Report, Vol. I, pp. 264 — 67.

2.4 *The relative position of different industries in the corporate sector*

We now close this section by presenting the relative position of different industries in the company sector since we shall have occasion to refer to different industries repeatedly, with only various types of *rates* as measures of profitability. As a consequence, the relative position of different industries could easily be obscured. We therefore present (in Table 38) the relative position of different industries in the company sector for a single year. It should help us to form a rough idea of the relative position of different industries. We have remarked in Chapter 3 that paid-up capital over-estimates the business of private limited companies as represented by total capital employed, especially in the non-manufacturing industries [1]. But, for the rough estimate of comparative size that we seek to obtain here, this question can be neglected.

[1] The RBI estimates the business of private limited companies (as measured by total capital employed) for manufacturing and non-manufacturing groups together at some 20 percent instead of 27 percent as shown by paid-up capital in Table 38 (see Appendix I). However, the position of the manufacturing industries is represented substantially correctly by paid-up capital.

It can be noted that private limited companies are less important in the manufacturing group than in the non-manufacturing group. The samples from which our material for the study of profitability are taken cover mainly manufacturing industries and are drawn exclusively from the public limited companies.

Table 38. PAID-UP CAPITAL OF INDIAN JOINT-STOCK COMPANIES IN 1951—52. By Industry

Industry	Amount (Rs crores)	*Percent of total*
Manufacturing industries		
Cotton Textiles	111.63	*20.4*
Jute Textiles	28.29	*5.2*
Other Textiles (Silk & Woollen)	6.78	*1.3*
Iron & Steel	19.01	*3.5*
Engineering (incl. electr. goods)	72.26	*13.2*
Sugar	25.57	*4.7*
Chemicals	27.79	*5.1*
Paper	12.62	*2.3*
Vegetable oil	14.28	*2.6*
Matches	2.92	*0.5*
Cement	19.90	*3.7*
Tea Plantations	24.15	*4.4*
Other Plantations (Coffee & Rubber)	4.99	*0.9*
Coal	21.12	*3.9*
Electricity (Generation & Supply)	29.09	*5.3*
Shipping	16.16	*3.0*
Others	109.40	*20.0*
Total	545.96	*100.0*

Private Limited Companies as percentage of all mfg. companies 18.1

[Table concluded on next page]

Industry	Amount (Rs crores)	*Percent of total*
Non-manufacturing industries		
Transport & Communications (other than shipping)	12.35	*4.5*
Trading	88.67	*32.5*
Managing Agency	35.29	*12.9*
Banks	36.91	*13.5*
Insurance	12.50	*4.6*
Investments	26.68	*9.8*
Other financial companies	8.28	*3.0*
Hotels	2.81	*1.0*
Theatres, Motion Pictures & Films	9.84	*3.6*
Miscellaneous	39.49	*14.6*
Total	272.82	*100.0*
Private Limited Companies as percentage of all non-mfg companies		*44.8*
Grand total	818.78	
Private Limited Companies as percentage of mfg and non-mfg companies combined		*27.0*

Source: TEC Report, Vol. I, p. 105.

3. RATIO OF NET PROFIT TO PAID-UP CAPITAL

3.1 The figures

It is well known that the ratio of net profit to paid-up capital is the roughest of the three measures of profitability that we are studying. We shall therefore be brief.

We are able to present in Table 39 the net profits of Indian industries as a percentage of paid-up capital by industry for 1946—51 only. For later years, we can give only the averages of all industries from the Reserve Bank of India's sample data. The series of average rate of net profit to paid-up capital for the TEC sample do not link very perfectly with those of RBI sample. We have therefore introduced a correction

Table 39. NET PROFIT[1] AS PERCENTAGE OF PAID-UP CAPITAL[2] INDIA 1946—55

A. *T.E.C. data by industrial breakdowns, 1946—51*

Industry / Year	1946	1947	1948	1949	1950	1951	Average 1946–51
1. Cotton textiles	33.8	28.7	52.8	17.1	22.1	32.2	31.2
2. Jute textiles	20.0	17.5	16.9	—	21.8	24.0	15.8
3. Other textiles	15.7	22.4	12.9	5.0	10.8	6.3	11.5
4. Iron and Steel	23.4	16.3	14.7	21.0	22.4	30.3	21.5
5. Engineering	3.8	5.2	4.0	4.3	4.0	5.0	4.4
6. Cement	7.7	4.7	6.7	8.7	12.8	16.9	10.0
7. Sugar	11.6	17.3	30.1	11.2	16.1	24.3	18.4
8. Paper	23.7	14.6	19.9	25.3	36.1	47.2	28.1
9. Vegetable oil	15.1	12.5	10.0	9.0	5.0	—	8.2
10. Chemicals	4.9	4.9	1.3	2.8	4.6	4.7	3.8
11. Matches	59.2	41.8	45.9	55.1	45.9	43.9	49.0
12. Coal	16.6	14.6	15.3	22.8	18.5	16.8	17.4
13. Electricity	9.0	10.2	11.1	11.1	10.2	10.2	10.3
14. Shipping	11.8	—	—	—	2.3	16.2	4.2
15. Tea Plantations	28.2	33.9	20.9	22.2	35.1	20.7	26.6
16. Coffee Plantations	11.5	8.0	10.3	12.6	17.2	23.1	13.6
17. Others	12.2	11.3	11.9	12.7	16.5	17.1	13.8
I All industries (TEC)	16.6	13.8	16.7	10.1	15.1	18.8	15.2
II All industries average (TEC sample corrected for linkage with RBI sample[3]	12.9	10.7	13.0	7.8	11.7	14.6	11.7

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[1] Profits after allowing for depreciation, managing agency commission and taxation.

[2] Paid-up capital excluding bonus shares issued during 1946—51. "—" indicates losses.

[3] Deflated on the basis of linkage with RBI series as follows:—

Linkage:	1950	1951
TEC	15.1 p.c.	18.8 p.c.
RBI	11.5 ,,	14.9 ,,

On an average of the two years the ratio of TEC series to RBI series is .776

B. *All-industries average rates for a continuing series 1946—55*

— Percentages —

Year	Linked on the basis of RBI series with average proportions of 1950 & '51	Linked on the basis of TEC series extended forward [1]
1946	12.9	16.6
1947	10.7	13.8
1948	13.0	16.7
1949	7.8	10.1
1950	11.7	15.1
1951	14.6	18.8
1952	8.8	11.0
1953	10.5	13.1
1954	12.1	15.4
1955	15.2	21.0
Average 1946—55	11.7	15.2
„ 1951—55	12.2	15.9

[1] Used mainly for comparison in § 5. 6. 3. See p. 152.

Sources: A. Taxation Enquiry Commission Report (1953—54), vol. I, p. 306. Questionnaire data provided by 492 companies.

B. R.B.I. Bulletin Sept. 1957, *loc. cit.*, calculated from Tables 2 and 13.

for consistency and have thus obtained a corrected series for the average of all industries, which is shown in section II of Table 39-A and in Table 39-B. The correction is made on the assumption that the RBI sample is more representative [1], while a second series is also provided in Table 39-B to represent the higher position.

It is quite possible that profitability is affected by the size of the firms. The average size of companies in the TEC sample as measured by paid-up capital is larger than that of the RBI sample. The lower rates for the RBI sample in the two overlapping years may be partly explained by this fact.

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[1] Here we have taken the *average* of the two years, 1950 & 1951, for determining the proportion for linkage. For the purpose of determining the marginal corporate saving propensity we have adopted quite another method — viz., forward and backward extension of the two samples. See *infra*, § 6.5.1.

In this chapter also we shall use a forward extension of the TEC series for comparison with a series obtained for the U.K. from *the Economist's* samples. See *infra* § 5.6.2.

Confining our remarks to the TEC sample for the years 1946—51 we see that Cotton Textiles, Iron and Steel, Paper, Matches, and Tea Plantations were the most profitable lines. Second in rank come Jute textiles, Sugar, Coal, Coffee Plantations, and Others. Other textiles, Cement, Vegetable oil, and Electricity yielded moderate rates. Engineering, Chemicals, and Shipping were the least profitable.

4. RATIO OF NET PROFIT TO NET WORTH

4.1 Introduction and definition

This is frequently called the most satisfactory of all measures of profitability because this ratio answers the points of view of the stock-investor as well as the business firm. Net worth is usually defined as all the assets of a company to which the stock-holder has title, i.e., net assets after deducting liabilities and prior charges. On the capital account, it consists of the paid-up capital, all reserves other than taxation and depreciation reserves, and the balance of profit.

The ratios of net profit to net worth are set out by industry in Table 40 for the period 1946—55 in two sets of overlapping years. It may be noted that the two sets do not correspond perfectly. A correction for overlapping has been introduced in the all-industries total only. However, the inter-industrial pattern is not materially distorted.

4.2 Comparison with ratio of paid-up capital

For the sake of easy comparison, the two rates covered so far are placed side by side in Table 41 by industry. The average of the period 1946—51 has been chosen because industrywise ratios of net profit to paid-up capital are more readily available for these years.

Since net worth is a larger sum, of which paid-up capital forms a part (some 64 percent for the all-industries average, 1950—55) it is quite clear why col. 2 is consistently lower than col. 1 in all industries. The inter-industry pattern of differences, however, is not the same for the

Table 40. NET PROFIT[1] AS PERCENTAGE OF NET WORTH[2], INDIA, 1946—55. BY INDUSTRY.

	Industry Year*	1946	'47	'48	'49	'50	'51	*Aver. 46—51*	'50	'51	'52	'53	'54	'55	*Aver. 51—55*
1.	Cotton textiles	13.1	10.7	17.7	5.6	7.1	10.5	*10.6*	6.5	9.6	2.1	3.8	3.8	8.6	*5.6*
2.	Jute textiles	11.3	9.9	8.3	†	10.4	10.9	*8.0*	9.2	12.9	2.5	5.5	5.1	3.6	*5.9*
3.	Other textiles[3]	12.3	15.5	9.0	3.6	7.6	4.4	*8.2*	3.5	1.6	0.5	0.3	3.0	11.4	*3.7*
4.	Iron and Steel	14.1	9.4	8.0	11.2	11.8	15.0	*11.7*	10.3	15.2	15.3	14.4	18.6	22.6	*17.6*
5.	Engineering[4]	3.3	4.4	3.3	3.5	3.2	3.9	*3.6*	4.7	5.0	4.5	4.0	6.0	11.4	*6.4*
6.	Cement	7.0	4.3	6.1	7.8	11.0	14.8	*8.8*	10.0	11.5	11.7	10.0	10.9	11.1	*11.0*
7.	Sugar	7.5	9.4	15.1	5.4	7.6	11.0	*9.3*	7.5	11.8	8.3	10.1	9.4	10.3	*10.0*
8.	Paper	13.3	8.0	9.6	10.0	13.0	15.6	*11.9*	9.9	13.3	11.6	10.1	8.3	10.3	*10.6*
9.	Vegetable Oil	11.6	9.5	7.4	6.5	3.6	†	*6.0*	1.6	—	—	3.8	—	7.2	—
10.	Chemicals[5]	4.3	4.1	1.1	2.4	3.8	3.8	*3.2*	4.1	3.8	0.4	1.2	3.1	5.9	*3.0*
11.	Matches	26.1	17.2	15.5	17.2	13.5	12.4	*16.5*	13.3	12.3	13.0	10.3	10.2	9.6	*11.0*
12.	Coal	9.9	8.4	8.3	11.8	9.3	8.2	*9.3*	6.7	6.2	7.9	4.7	5.6	8.0	*6.5*
13.	Electricity	7.8	8.5	9.0	8.9	8.1	8.1	*8.4*	7.1	7.4	7.6	6.9	7.2	7.4	*7.3*
14.	Shipping	7.8	†	†	†	1.3	8.9	*2.4*	1.7	9.9	7.9	1.9	2.0	4.6	*5.1*
15.	Tea Plantations	17.4	20.5	11.4	12.0	17.9	10.4	*14.5*	16.5	8.6	—	21.5	30.6	8.8	*14.3*
16.	Other Plantations[6]	9.2	6.3	7.8	9.1	12.0	15.3	*10.0*	13.3	17.1	12.3	13.8	13.0	13.8	*14.0*
17.	Trading	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	..	10.4	10.3	5.1	3.5	1.6	4.1	*4.9*
18.	Land and Estate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	..	2.3	2.6	2.3	2.4	1.9	—	*1.6*
19.	Others	9.1	8.0	8.2	8.5	10.6	10.6	*9.3*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	—
	Total All Industries	10.4	8.4	9.5	5.7	8.3	10.0	*8.7*	7.7	9.6	5.7	6.8	7.8	9.4	*7.9*
															Aver. 46—55
	Corrected for linkage	*9.6*	*7.8*	*8.8*	*5.3*	*7.7*				*9.6*	*5.7*	*6.8*	*7.8*	*9.4*	*7.9*‡

* Years 1946—51 are for a sample of 492 companies which responded to the questionnaire issued by the Taxation Enquiry Commission 1953—54. See *Report* Vol. I, p. 123. Again, the years 1950—55 are for a sample of 750 companies' balance sheet data, analysed in the *Reserve Bank of India Bulletin*, September 1957 (p. 845).

[1] Profits net of depreciation, interest charges, managing agency commission and taxation.

[2] Paid-up capital plus all reserves (other than taxation and depreciation reserves) and balance of profit. [3] Silk and Woollen.

[4] Non-ferrous metals, transport equipment, electrical and other machinery. [5] Basic industrial chemicals, medicines and pharmaceuticals and other chemicals. [6] Coffee and rubber.

"†" = Loss. "—" indicates that numerator or denominator is zero or negative.

‡ The 10-year average coincides with the 5-year average for 1951—55.

Table 41. COMPARISON OF TWO PROFITABILITY RATES, INDIA 1946—51 BY INDUSTRY

(Rates in percentages)

Industry	Type of Rate	Net profit to paid-up capital (1)	Net profit to net worth (2)
1. Cotton textiles		31.2	10.6
2. Jute textiles		15.8	8.0
3. Other textiles		11.5	8.2
4. Iron and Steel		21.5	11.7
5. Engineering		4.4	3.6
6. Cement		10.0	8.8
7. Sugar		18.4	9.3
8. Paper		28.1	11.9
9. Vegetable oil		8.2	6.0
10. Chemicals		3.8	3.2
11. Matches		49.0	16.5
12. Coal		17.4	9.3
13. Electricity (generation and supply)		10.3	8.4
14. Shipping		4.2	2.4
15. Tea Plantations		26.6	14.5
16. Coffee & Rubber Plantations		13.6	10.0
17. Others		13.8	9.3
I Total	Without correction	15.2	
(Average 1946—51	With correction	11.8	8.7
II Average 1951—55		12.2	7.9

Sources: Tables 39 and 40.

two ratios (net profit to paid-up capital, and net profit to net worth). Since the amount of net profit involved in the two rates is the same, this divergency in the inter-industry pattern for the two ratios arises because the proportion of paid-up capital relative to net worth is different in each industry.

However, it may be noted that the broad ranking is about the same as observed for the rate on paid-up capital — Matches maintaining the highest position but Tea Plantations occupying the second place instead of Cotton textiles. Significant difference is to be observed in the cases of Cement, Electricity, and Coffee Plantations. The first two of these jump from third ranking to the second. Coffee rises from second ranking and comes very near first ranks. This means that reserves and balance of profit are relatively less important than paid-up capital in the composition of their net worth.

One general point about this inter-industrial comparison that emerges is that in many cases where the rate on net worth is relatively much lower than the rate on paid-up capital, it may be due to large reserves built up either during the period considered or from an earlier period. In still other cases where the rate on net worth tends to move the industries to a higher ranking than is indicated by the rate on paid-up capital, it does not necessarily indicate a better position than the other type just mentioned. For their reserves and balance of profit position are comparatively weaker.

5. RATIO OF GROSS PROFIT TO TOTAL CAPITAL EMPLOYED

5.1 Introductory

We now come to what we consider the most significant criterion of the profitability (and synonymously, of the efficiency) of a firm as an entity *sui generis*, chiefly on theoretical grounds. For it is in the nature of a general consideration that a firm (entrepreneur) brings together all the other factors of production with the help of the capital it mobilizes. In many instances (at any rate in many Western countries), capital other than the stock-holders' plays quite a dominant part in the operation of joint-stock business. It is therefore relevant to consider stock-holders' capital as well as borrowed capital together and see what rate of profit is earned on this total capital.

5.2 Definitions

Definition I. Before proceeding to analyse the rates presented in

Table 42, we must carefully examine what the two terms, "total capital employed" and "gross profit", cover.

"*Total capital employed*". In addition to the net worth, the T.E.C. and the R.B.I. definitions include the following items:

1. taxation reserves;
2. borrowings
    - from banks,
    - mortgages,
    - debentures,
    - due to trade,
    - others;
3. other current and non-current liabilities;

which are equivalent to total assets net of depreciation.

"*Gross profit*". Gross profit has been defined (by the T.E.C. and the R.B.I.) to include interest charges, managing agency commissions, and provisions for taxation. Depreciation charges have been excluded.

In Table 42 columns 1 to 10 show rates calculated on the above definitions of "total capital employed" and "gross profit".

It is quite consistent to include in gross profit the taxation reserves and interest charges while including taxation reserves and borrowings in the item of capital.[1] The inclusion of managing agency commissions may be disputed as well as defended. It is a matter of choice. It may be disputed on the grounds that managing agency commissions are an operational charge which should be deducted from gross profit. On the other hand, since managing agents themselves often hold a controlling share of stocks [2], it has been a common presumption in India that their commission is a covert way of diverting a part of profit into their pockets. Implicitly accepting this presumption, the T.E.C. and the R.B.I. have included this item in gross profits.

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[1] It must be noted that inclusion of taxation reserves in the capital item as well as in the gross profit boosts up the rate of gross profit.

[2] They are usually the highest single holders of stocks, often holding as high as 25 percent of the common stocks.

Table 42. GROSS PROFIT[1] AS PERCENTAGE OF TOTAL CAPITAL EMPLOYED, INDIA, 1946, 1948—55

Industry										Average of 1951 — 1955		
Year	1946	’48	’49	’50	’51	’52	’53	’54	’55	Variant def. I	Variant def II	Variant def III
No. of companies	407	710	710	750	750	750	750	750	750			
Column No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Cotton Textiles	18.3	21.1	10.4	8.4	12.0	5.1	6.5	6.6	10.8	8.2	6.2	4.4
2. Jute Textiles	18.4	12.5	1.9	11.0	13.6	8.3	8.1	8.0	6.2	9.1	7.4	4.8
3. Other Textiles	11.3	11.2	5.1	5.2	2.6	2.1	3.4	5.8	10.1	5.1	4.2	3.6
4. Iron and Steel	15.8	8.5	10.0	10.6	15.0	14.5	13.9	15.3	16.5	15.1	11.0	10.1
5. Engineering	0.7	7.1	3.3	6.4	6.5	6.2	5.3	6.9	10.3	7.3	3.6	3.1
6. Cement	9.8	11.0	9.8	11.3	14.2	13.7	12.2	14.4	14.4	13.8	9.7	8.1
7. Sugar	9.8	14.4	9.8	7.9	10.4	8.5	10.9	9.2	9.9	9.8	7.1	5.9
8. Paper	19.7	8.4	7.1	11.2	14.0	12.8	12.5	10.0	12.2	12.2	9.4	7.9
9. Vegetable oil	19.2	4.0	2.3	2.6	1.0	1.3	4.3	—	7.1	2.5	1.9	1.4
10. Chemicals[2]	8.1	5.0	3.6	5.2	5.7	3.2	3.7	4.5	6.9	4.8	3.6	2.9
11. Matches	34.1	33.3	24.2	17.2	16.2	16.2	13.6	13.1	12.2	14.1	10.6	8.1
12. Coal	12.4	n.a.	n.a.	9.2	8.8	9.7	6.6	7.1	9.6	8.3	6.1	4.5
13. Electricity	11.3	10.4	9.4	8.4	8.1	8.4	7.9	7.8	7.4	7.9	6.5	5.7
14. Shippping	13.3	n.a.	n.a.	2.5	8.2	7.4	3.5	2.5	4.9	5.1	4.5	3.7
15. Tea	19.9	n.a.	n.a.	18.4	10.7	1.4	23.7	33.7	10.2	16.9	12.8	10.6
16. Coffee and Rubber	10.0	n.a.	n.a.	14.7	17.5	13.3	14.8	16.5	17.0	15.9	12.7	11.7
17. Trading	n.a.	n.a.	n.a.	8.0	8.2	4.8	3.8	2.9	4.4	4.9	3.1	2.8
18. Land and Estat	n.a.	n.a.	n.a.	3.8	4.7	4.0	4.7	4.5	1.0	3.8	2.0	1.7
(others)	13.0	5.2	1.9									
All Industries (incl. others)	14.4	14.5	8.1	9.0	10.7	7.6	8.4	9.1	10.2	9.2	6.7	5.5

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[1] Gross Profit defined in three different ways, (see text): (1) Gross profit including interest charges, managing agency commission, and provisions for taxation; (2) including interest charges and managing agency commissions; and (3) including interest charges only.

[2] Chemicals include Basic Industrial Chemicals, Medicines and Pharmaceutical Preparations, and other chemical products.

Sources: TEC and RBI.

Indeed, in many cases the remuneration of the managing agents appears to be too high [1].

But it is necessary to bear in mind the borderline nature of the item. Part of it — though exactly what part, it is difficult to ascertain — is certainly genuine compensation for the services rendered by the managing agents. But generally a much larger part is sheer diversion of profits into the pockets of the managing agents by means of their controlling power in the business concerned.

To complete the description of Table 42:
Two more variant definitions of gross profits have been used to obtain the rates shown in columns 11 and 12. For the sake of convenience, the definition used for the columns 1 to 10 is designated variant definition I, column 11 is variant definition II, and column 12 variant definition III.

Variant definition II:

Gross profits include managing agency commission and interest charges, but exclude (provision for) taxes. Similarly, "total capital employed" excludes taxation reserves, but includes all the other items shown in variant definition I (Net worth + borrowings + other current and non-current liabilities).

Variant definition III:

In this definition profits are net except for interest charges. Depreciation, taxes, and managing agency commission are excluded.

Here, the "total capital employed" remains the same as under variant definition II.

5.3 Comparison with ratio of net worth

a. Comparing definition I: The purpose of using the second and the third variant definitions will be made clear in the next paragraph. Two remarks about the first variant are in order.

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[1] The average for 1950—54 in the R.B.I. sample was 13.5 percent of profits including taxation and managing agency remuneration. In Cotton textiles, Jute textiles, Coal mines, and Shipping "it exceeded 20 percent of profits and was even larger than retained profits .... it was relatively low in iron and steel industry and tea plantations where it was less than 10 percent of profits". *R.B.I. Bulletin*, January 1957, p. 11.

One is that the broad inter-industrial pattern of profitability shown under this definition (cf. column 10) is similar to that shown by the rate of net profit to net worth (Table 40).

Two, a somewhat curious result is noticed when we compare the two rates (the rate of net profit to net worth with the rate of gross profit to total capital employed, first variant) industry by industry. This is that except in four cases (see Table 43), the former is *lower* than the latter. Normally, if the borrowed capital is efficiently utilized, we should expect the benefit to accrue to the stockholders. This should manifest itself in a higher return on stockholders' capital (say, the ratio of net profit to net worth) than on total capital, which is usually stockholders' capital plus borrowed capital. This condition is satisfied only in two cases — Iron and Steel, and to a far lesser degree, Sugar. Two other cases are neutral — the differences between the two rates being zero. These are: Shipping, and Trading.

Does this mean that all the other industries dealt with in our Tables utilise their borrowings [1] inefficiently? The question provides the *raison d'être* of using the second and the third variant definitions.

Incomparability of Definition I: A little probing beneath the surface would show that the rate of net profit to net worth and the rate of gross profit to total capital employed — first variant — as provided by the (T.E.C. and the) R.B.I. are not comparable. The most important single item is the amount provided for taxes. In Table 40 this amount enters neither in the net worth nor in the net profit. On the other hand, Table 42 — first (the T.E.C. — and R.B.I. —) variant, includes tax provisions both in the "total capital employed" and in the "gross profits" which means inflating the rate by 100 percent so far as this item is concerned. We need not go into details and try to determine the exact influence this and other factors exerted in making the two ratios incomparable. For our purposes, we have given a sufficient argument in favour of the two other variant concepts used by us, the common characteristic of both being that tax provision is removed from the capital as well as the profit item.

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[1] We use the word borrowings rather than borrowed capital in consonance with the definition of total capital employed used by T.E.C. and R.B.I., because it includes both long-term and short-term capital.

b. Comparing variant definitions with net profit to net worth

From Table 43 we can see that the second variant shows an improved

Table 43. PERCENTAGE OF NET PROFIT TO NET WORTH HIGHER OR LOWER THAN THE PERCENTAGE OF GROSS PROFITS TO TOTAL CAPITAL EMPLOYED IN THREE VARIANT DEFINITIONS, 1951—55

(higher indicated by "+" sign and lower by "—" sign)

	Net Profit as % of net worth (Table 40)	Net profit as % of net worth higher or lower than Gross profit as % of Total Capital (Table 42).		
		Variant I	Variant II	Variant III
1. Cotton Textiles	5.6	— 2.6	— 0.6	+ 1.2
2. Jute Textiles	5.9	— 3.2	— 1.5	+ 1.5
3. Other Textiles	3.7	— 1.4	— 0.5	+ 0.1
4. Iron and Steel	17.6	+ 2.5	+ 6.6	+ 7.5
5. Engineering	6.4	— 0.9	+ 2.8	+ 3.3
6. Cement	11.0	— 2.8	+ 1.3	+ 2.9
7. Sugar	10.0	+ 0.2	+ 2.9	+ 4.1
8. Paper	10.6	— 1.6	+ 1.2	+ 2.7
9. Vegetable oil	—			
10. Chemicals	3.0	— 1.8	— 0.6	+ 0.1
11. Matches	11.0	— 3.1	+ 0.4	+ 2.9
12. Coal	6.5	— 1.8	+ 0.4	+ 2.0
13. Electricity	7.3	— 0.6	+ 0.8	+ 1.6
14. Shipping	5.1	0.0	+ 0.6	+ 1.4
15. Tea	14.3	— 2.6	+ 1.5	+ 3.7
16. Coffee and Rubber	14.0	— 1.9	+ 1.3	+ 2.3
17. Trading	4.9	0.0	+ 1.8	+ 2.1
18. Land and Estate	1.6	— 2.2	— 0.4	— 0.1
All Industries	7.9	— 1.3	+ 0.9	+ 2.3

situation already. Neglecting Land and Estate, twelve out of seventeen groups show a higher return to net worth. And in the case of the third variant, all groups excepting Land and Estate[1] show a higher return to net worth.

This Table suggests many further analytical lines which could be pursued, depending upon the object in view. We have succeeded in demonstrating that for the given years most of the Indian industries did not use borrowed capital inefficiently. Inter-industry differences in the degree of efficiency in this respect certainly exists. It could be worked out by calculating in each case the proportion of borrowed capital used and comparing the differences between the rate on net worth and the rate on total capital as percentage of the rate on net worth. However, for such further refinements, it may be necessary to separate long term borrowed capital from other (short term) borrowings; and to relate the latter to the inventory, trade advances, etc. Let us clarify this point: by a glance at the difference with variant III (Table 43) we see that Iron and Steel, Engineering, and Sugar, have the largest margin in proportion to their rate on net worth.

This means that they have utilised their borrowings in the most efficient manner[2]. But this is only a first approximation. For a complete inter-industry comparison, the types of borrowings have to be distinguished, — long-term and short-term, and in some cases even medium-term (e.g. mortgages). Then again, different industries are at different points in their business cycle in a given year. Therefore, long-term averages should be used. Perhaps our 5-year averages will not do too badly, though a longer-term average would certainly have been welcome.

6. INTERNATIONAL COMPARISON

6.1 Introductory

It will be interesting to compare the profitability of business in India with that in some high-income countries. However, an international comparison of profitability is extremely difficult to make in any very precise way. Certain broad things are of course known. For instance, it is well known that during the prosperous years of the inter-war period and earlier, some of the extractive industries which were worked and owned by foreign enterprise, were highly profitable in India and other low income countries. If we go farther back to the period of high capitalism of the 19th century it is even possible to assert that foreign investment in certain types of industries — not all — in the now (and also then) low-income countries was much more profitable than investment within the metropolitan countries (say England, Holland, France, etc.). That avantage often flowed from political control rather than from greater entrepreneurial efficiency — speaking of these foreign enterprises operating abroad as against the enterprises operating within the metropolitan countries.

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[1] We have included the item only because the R.B.I. has provided it; and elimination would necessitate the recalculation of all the totals. The position of Vegetable oil has not been determined.

[2] It may be noted that sugar enjoyed the benefit of a protective tariff.

Beyond these broad historical generalities, when we come to make an exact study of comparative profitablility in India and in some high-income countries with the help of actual figures, we meet with the difficulty of obtaining *comparable* figures. The general problem of instituting an international comparison of profitability arises from two basic things. One is that figures of profit are often misleading because, among other things the practice of writing depreciation differs considerably more between different countries than between industries or corporations within one country. Secondly, figures of capital are also calculated on widely varying practices. In this respect, two distinct practices are followed for quoting share capital. In U.K. and many Commonwealth countries including India, and also in some European countries like the Netherlands [1], the system of showing nominal paid-up capital is in vogue whereas in U.S.A. and many other countries it does not exist [2]. It seems that an attempt to collect comparable figures from among the first group of countries is more repaying. Moreover, a rather close similarity of accounting practices of U.K. and India makes it somewhat more meaningful to look for a comparison with the profitability in U.K. We shall therefore make U.K. the main field of our comparison: We have all-industry average data on all the types of profit-rate that we have discussed for India. Only for the ratio of net profit to paid-up capital do we have firm figures from another country, the Netherlands[1], which we may deal with first. After covering these two countries we shall pass on to assess the profitability of foreign enterprise in India[2].

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[1] International shares of some of the big firms are now quoted in the American way.

[2] Therefore profit rate on paid-up capital is not used. Rate on net worth should be theoretically comparable, but since net worth has to be calculated on the valuation of assets, there are difficulties in establishing comparability. It would be better to seek a comparison of the rate of return on total capital employed. We have not had the time to take up the extra load of work.

6.2 The Netherlands

We give only the ratio of net profit to paid-up capital (nominal value of shares). This is set out in Table 44 on the next page.

We find that the profit rate has been very much higher than that in India (Table 39) and in the U.K. (Table 45). Another striking thing is that except for a very slight setback in 1954, the rate of profit has been steadily and continuously rising from 1947 to 1955. The staggering profits of the Dutch international shares of the four giant companies provide a clue to the flow of dollar funds into the country which contributed so much towards creating the Dutch miracle of a quick rise in the foreign exchange reserves during the first post-war decade.

Little economic significance could attach to the lower profitability of Indonesian shares since it is chiefly attributable to the altered political conditions. Note the good conditions of shipping as against very poor conditions in the same line of business in India.

6.3 United Kingdom

Very elaborate comparison can be made on the basis of balance sheets and appropriation accounts of some 2800 companies published quarterly by *The Economist*. However, to restrict our work to manageable proportions, we have taken only the aggregate data of those sample companies which publish their reports during October—December. The post-war rates are shown in table 45.

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[1] It may of course be possible to collect comparable figures from more countries. But in our limited study we could not divert our main effort in that direction.

[2] Figures of return on British overseas investment are available country-wise and also industrywise for the total (not for each country where the investments are spread). But these are *dividends and interests actually entering U.K.* Some of these figures are shown in Appendix XVI.

Table 44. NET PROFIT[1] AS PERCENTAGE OF NOMINAL VALUE OF SHARES IN THE NETHERLANDS, 1947—56

Year	International[3] shares	Manufact. industry	Shipping	Banks	Indonesian shares	Weighted Incl. (1)	Average Excl. (1)
Weights[2]	47	24	8	8	13		
Col. No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1947	—(*)	15.1	13.7	19.2	13.1	—	15.0
1948	—(*)	16.0	16.2	16.8	12.1	—	15.2
1949	44.9	16.1	18.1	15.6	17.0	29.9	16.6
1950	61.1	20.8	25.5	17.9	10.1	38.5	18.5
1951	73.8	25.5	35.3	21.1	12.3	46.9	23.1
1952	72.3	22.2	49.0	18.5	13.7	46.5	23.6
1953	76.6	28.5	29.1	18.8	15.4	48.7	23.9
1954	86.2	28.8	25.3	20.2	14.2	52.9	23.4
1955	103.7	33.2	35.1	23.7	10.5	62.8	26.5
1956	108.0	29.7	39.0	23.8	9.8	64.2	25.3
Average for the period covered	*78.3*	*22.6*	*28.6*	*19.6*	*12.8*	*47.8*	*20.6*

[1] Profit after deducting depreciation and taxes.

[2] Weights obtained from "Maandstatistiek van het Financiewczen" (Central Bureau of Statistics) April, 1955.

[3] The international shares of A.K.U., Royal Dutch, Unilever, and Philips.

* Not available for these years for Royal Dutch Oil, and therefore not shown.

Sources: a. *Rotterdamsch Beleggingsconsortium N.V. Verslag over 1957*, p. 17, (for cols. 1 to 5) on the basis of C.B.S.-A.N.P. figures.

b. Cols. 6 and 7 worked out on the basis of weights obtained as shown in note 2. above.

Table 45. PROFIT RATES [1] IN THE UNITED KINGDOM, 1948—55

(All rates expressed as percentages)

Type of rates	Net Profit to Paid-up Capital	Net Profit to Net Worth	Gross Profit to Total Capital		
			I Profit before tax *plus* directors' emoluments,etc. *plus* debenture interest to total capital	II Profit after tax *plus* directors' emoluments etc. *plus* deb. interest to total capital *excl.* tax provision	III Profit after tax *plus* debenture interest to total capital *excl.* tax provision
Year Col. no.	(1)	(2)	(3)	(4)	(5)
1948	17.9(2)	7.8(2)	n.a.	n.a.	n.a.
1949	18.0(2)	7.2(2)	n.a.	n.a.	n.a.
1950	13.5	6.2	15.0	7.2	4.1
1951	24.8	10.7	20.6	12.2	6.7
1952	2.6	1.2	10.2	3.4	1.1
1953	14.6	7.3	13.4	7.4	4.8
1954	15.0	8.1	13.0	6.9	5.1
1955	15.7	7.9	7.1	6.7	5.0
Average 1951—55(3)	14.6	7.1	14.0	7.5	4.7

[1] Calculated on the basis of definitions of capital and profit comparable to those adopted for Indian rates (Tables 39, 40 and 42).

[2] These are not exactly comparable to the rest of the series since the rates are taken directly from *The Economist* (January 28, 1950, p. 216), which gave them for a larger sample.

[3] Average could be calculated only for 1950—55. Instead, we give it for 1951 — 55 because most of the RBI rates are averaged for these years.

n.a. means not available for the same series.

Source: *The Economist*. Details and method of calculation are given in Appendix XV.

It is gratifying to note that the *average* rate of net profit on paid-up capital for the given *Economist* sample during 1951—55 happens to be practically the same as in the case of *all* U.K. Companies (see Appendix XV-B [1]), which is 14.4 percent.

Comparison with India

The comparative position can be seen below:—

PROFIT RATES (AVERAGE OF 1951—55) — PERCENTAGES

Col. nos. of table 45	(1)	(2)	(3)	(4)	(5)
U.K.	14.6	7.1	14.0	7.5	4.7
India	12.2 (15.9)[1]	7.9	9.2	6.7 (5.9)*	5.5 (4.7)*

[1] Result of extending TEC series forward.
* Corrected for debenture interest only at an assumed rate of 6 per cent and deducting from "total capital employed" only tax provision (= actual) instead of taxation reserves.

The evidence suggests that profitability of the well organised companies in India was more or less similar to that in U.K.

We find that net profit as a ratio of paid-up capital was slightly lower in India if we go by the RBI sample. TEC-extended series show a slightly higher rate. Net profit to net worth was slightly higher in India. These differences are not large enough to definitely establish higher profitability of one country or the other. As stated above, general profitability seems to have been about the same in both the countries. It is quite possible of course that certain specific lines of business are more profitable in one country and again certain other lines are more profitable in the other country. We shall revert to this point in the next section.

Comparison of the ratio of profit to total capital employed in three variant forms is a bit intriguing. In the first two variants it was higher in the U.K., and in the third variant it was lower than or about equal to the rate in India. The Indian rates within brackets are more comparable than those taken directly from Table 42, since taxes in the case of the U.K. companies are actuals which are deducted from total capital whereas in

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[1] Annual rates are rather different, particularly for the year 1951—1952, and also for 1948—1949. Part of the discrepancy can be attributed to the system of income-tax reporting which is the source of figures for *all* companies. *The Economist's* sample is not fully representative. This must also give rise to some discrepancy.

Table 42 taxation *reserves* have been deducted from total capital (in variants II and III) and interest includes more items than debenture interest. Corrections have been used on both these counts, but still the rates within brackets would be slightly higher if actual taxes rather than tax *provision* (which is shown in the RBI sample company accounts) were to be deducted to arrive at profit-after-tax. The conclusion seems to be that profitability is definitely higher in U.K. only if we take profits before tax [1]; it is nearly the same if we take profits after tax. The latter point is particularly supported by the rates in col. (5). This leaves the disparity between the rates in col. (4) to be accounted for. Further investigation shows the item "managing directors' emoluments etc." that has been taken as the U.K.companies' counterpart of managing agency commission turns out to be relatively much higher than the latter: for the relevant years directors' emoluments etc. were 2.5 percent of total capital employed (U.K.) whereas managing agency commission in India was only 1.1 percent of total capital employed.

The conclusion that profitability with reference to profit before tax was higher in U.K. is reinforced also by the rates on paid-up capital and net worth:—

Profit before tax (1951—55) as percentages of

	Paid-up capital	Net worth
U.K.	30.1	14.6
India	15.0 (25.5)[1]	13.3 (13.8)[1]

[1] Taking TEC-extended series.

This conclusion has two implications:—

(1) From the point of view of the nation as a whole profitability (social benefit) is higher in the U.K.

(2) From the point of view of corporate retention policy, profit after tax is the relevant thing. If profitability in this sense governs retention or corporate saving, U.K. companies and Indian companies (insofar

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[1] This holds even after we allow for the discrepancy arising out of the differences in the rates of directors' emoluments etc. (U.K.) and managing agency commission (India) — the former is 2.5 percent of total capital employed and the latter, 1.1 percent. If we remove the item, we have 11.5 and 8.1 percent respectively for U.K. and Indian Companies.

as they are represented by the RBI sample) stand in a comparable position with respect to profitability (but the rate of retention is higher in U.K.).[1]

From the point of view of the business unit we cannot say very definitely that during the post-war period profitability has been lower in India than in all the high-income countries. It appears that in many European countries like Western Germany, Belgium, the Netherlands (we have studied data for the last of these only) etc. profits have been very high — possibly higher than in India. In the case of the Netherlands, this is definitely true. But then profitability in the Netherlands has been far higher than in, say, the U.K. What can be said is that profitability in India, while lower than in some high-income countries, has been at least equal to that in U.K.

In some specific lines of business, however, profitability in India seems to have been higher than that in many high-income countries — a point to which we shall return in the next section.

Table 46. COUNTRYWISE NON-BANKING FOREIGN BUSINESS INVESTMENTS IN INDIA

(*Amounts in Rs. crores*)

Country / Year as at the end of	June 1948		1953		1955		1956	
	amount	*per-cent*	amount	*per-cent*	amount	*per-cent*	amount	*per-cent*
United Kingdom	206.02	*80.5*	337.71	*83.7*	390.72	*83.2*	406.08	*80.2*
United States	11.17	*4.4*	30.06	*7.5*	39.76	*8.5*	46.84	*9.3*
Germany	8	—	8	—	2.54	*0.5*	2.76	*0.6*
Japan	17	*0.1*	12	—	16	—	16	—
Switzerland	5.35	*2.1*	5.98	*1.5*	6.61	*1.4*	8.22	*1.6*
Pakistan	8.41	*3.3*	4.14	*1.0*	4.35	*0.9*	4.17	*0.8*
I.B.R.D.	—	—	—	—	2.70	*0.6*	14.82	*2.9*
Other Countries	24.63	*9.6*	25.25	*6.3*	23.07	*4.9*	23.25	*4.6*
Total	255.83	*100.0*	403.34	*100.0*	469.91	*100.0*	506.30	*100.0*

From RBIB, September 1958, p. 1017. Percentages worked out.

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[1] We shall compare the actual rates of retention in the next chapter.

7. PROFITABILITY OF FOREIGN ENTERPRISE IN INDIA

7.0.1 The structure of foreign enterprise in India

In Table 8 we showed that the foreign business sector in India constituted 29 percent of the private sector in 1953. Although we have not worked out the proportions for later years, it provides us with the notion that it is in the neighbourhood of 30 percent. It will be useful to note here the composition of this foreign sector countrywise and industrywise. We give the roughest idea with the help of the latest official figures [1] without introducing corrections of the type made in Table 7 (and used in Table 8).

The position of non-banking foreign business investments is shown countrywise in Table 46 (opposite page) and industrywise in Table 47 (next page).

7.0.2 Source of profit data

Returns on foreign investments in India based on CIFLA and Survey data are available for the years 1947—48, 1952, 1953 and 1955. These were published in three issues of the *Reserve Bank of India Bulletin* [2]. The figures in the latest of these issues are the most systematic, but they deal with returns on U.K. and U.S. investments only. These cover the years 1953 and 1955. The issue previous to that does not present figures in the same systematic manner, but it covers returns on investments from more countries. It will be useful to use both sets of data.

7.1 Return on all foreign investments in India

First of all, let us take the returns on foreign investment from all countries for all the three categories of investment, viz., branches, subsidiaries (controlled companies) and portfolio. We shall take the return

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[1] RBIB, September 1958. The basis of our calculations in Chapter 3 was SIFLA *Report II* for the last day of the year 1953.

[2] (A) for 1947—48, RBIB, February 1952. (B) for 1952 and 1953 — RBIB, January 1956; prepared in the Balance of Payments Division of the Deptt. of Research & Statistics, RBI. (C). for 1953 & 1955 — RBIB, May 1958, prepared in the Division of international Finance of the DRS, RBI.

Table 47. INDUSTRYWISE NON-BANKING FOREIGN BUSINESS INVESTMENTS IN INDIA

(*Amounts in Rs. crores*)

Industry / Year as at the end of	June 1948		1953		1955		1956	
	amount	*per-cent*	amount	*per-cent*	amount	*per-cent*	amount	*per-cent*
Manufacturing								
Mineral Oils & Products	1.01	*0.4*	9.69	*2.4*	28.41	*6.0*	35.46	*7.0*
Electrical Goods . . .	4.77	*1.9*	12.01	*3.0*	14.63	*3.1*	15.78	*3.1*
Matches	1.73	*0.7*	3.22	*0.8*	2.29	*0.5*	2.34	*0.5*
Cigarettes and Tobacco	6.17	*2.4*	25.65	*6.4*	24.94	*5.3*	25.03	*5.0*
Medicines & Pharmaceuticals	45	*0.2*	5.53	*1.4*	7.65	*1.6*	8.29	*1.6*
Iron & Steel Products	5.48	*2.1*	6.68	*1.6*	9.43	*2.0*	18.53	*3.7*
Food Products including Vegetable Oils	1.82	*0.7*	3.97	*1.0*	3.22	*0.7*	3.22	*0.6*
Others	50.52	*19.7*	68.97	*17.1*	72.75	*15.5*	77.37	*15.3*
Total	71.95	*28.1*	135.72	*33.7*	163.32	*34.7*	186.02	*36.8*
Trading								
Mineral Oils & Products	21.32	*8.3*	67.40	*16.7*	75.50	*16.1*	80.53	*15.9*
Iron and Steel Products	3.62	*1.4*	69	*0.2*	89	*0.2*	1.02	*0.2*
Jute and Coir Goods. .	2.64	*1.0*	82	*0.2*	48	*0.1*	59	*0.1*
Food Products including Vegetable Oils.	3.49	*1.4*	58	*0.1*	1.19	*0.2*	1.20	*0.2*
Others	33.28	*13.0*	25.29	*6.3*	24.24	*5.2*	26.25	*5.2*
Total	64.35	*25.1*	94.78	*23.5*	102.30	*21.8*	109.59	*21.6*
Utilities and Transport	31.23	*12.2*	50.54	*12.5*	53.05	*11.3*	59.51	*11.8*
Mining	11.46	*4.5*	8.38	*2.1*	9.62	*2.0*	10.83	*2.1*
Financial.	6.87	*2.7*	14.70	*3.6*	28.53	*6.1*	28.14	*5.6*
Total	49.56	*19.4*	73.62	*18.2*	91.20	*19.4*	98.48	*19.5*
Plantations								
Tea	50.31	*19.7*	70.17	*17.4*	86.26	*18.4*	87.58	*17.3*
Others	1.94	*0.8*	1.33	*0.3*	94	*0.2*	64	*0.1*
Total	52.25	*20.5*	71.50	*17.7*	87.20	*18.6*	88.22	*17.4*
Miscellaneous								
Managing Agency . . .	14.40	*5.6*	26.20	*6.5*	24.62	*5.2*	22.92	*4.5*
Others	3.32	*1.3*	1.52	*0.4*	1.27	*0.3*	1.07	*0.2*
Total	17.72	*6.9*	27.72	*6.9*	25.89	*5.5*	23.99	*4.7*
Grand total	255.83	*100.0*	403.34	*100.0*	469.91	*100.0*	506.30	*100.0*

From RBIB, September 1958, p. 1019. Percentages worked out.

as a ratio of net worth. It is possible to do this more accurately for the year 1953 since we have worked out a corrected estimate of net worth for that year only. This is brought out in Table 48 below.

Table 48. EARNINGS OF FOREIGN BUSINESS INVESTMENTS IN INDIA RELATED TO NET WORTH, 1953

— BY TYPE OF INVESTMENT —

(*Amounts in Rs. crores*)

Classification	Net worth (1)	Earning (2)	Earning as percentage of net worth (3)
1. Branches	268.00	25.16	*9.4*
2. Subsidiaries (controlled companies)	117.00	5.73	*5.0*
3. Total: Branches and subsidiaries	385.00	30.89	*8.0*
4. Portfolio	58.00	3.45	*6.0*
Relevant rate for Indian companies			*6.8* [1]

[1] See Table 42.

Source: Col. (1). See Table 7.
Col. (2). RBIB, January 1956, p. 20.

Branches are clearly more profitable in the year considered. On the other hand subsidiaries and portfolio were less profitable than Indian companies. Subsidiaries were even less profitable than portfolios;— it will be remembered that portfolios are investments by foreigners in Indian companies controlled by Indians.

It seems that these differences in the earning capacity are better explained by inter-industry differences. For instance, tea plantations in India are highly profitable. Branch investments are heavily concentrated in petroleum, plantation, cigarettes and a few other select fields while the RBI sample of public limited companies cover a more representative list of industries. Tea plantations in 1953 were even more profitable for

Indian companies than for foreign branches. But in mining, foreign enterprises usually do much better than Indian enterprises. It is well known that the largest mining industry of India, viz., coal, is better suited to largescale operation and it is here that Indian holdings are small and ill-equipped and foreign holdings are large and well-equipped.

7.2 Return on combined U.K. and U.S. investments in India

The Division of International Finance, Department of Research and Statistics of the Reserve Bank of India gives systematically worked out rates for U.K. and U.S. investments in India for 1953 and 1955[1]. However, its net worth figure is likely to be slightly underestimated as compared to ours for 1953, and therefore the rates worked out by them may be slightly overestimated. But still, a comparison is quite fruitful. The figures of RBI are presented in Table 49 on the opposite page.

(1) We see that for the year 1953 the total earning rate of U.K. and U.S. investments combined are higher than that of *all* foreign companies together. This would stand out even allowing for the slight overestimate of the rate presented in this Table.

(2) In the case of Manufactures, branches have a much lower rate of return than subsidiaries. They do better in the case of "others"; and in 1953 slightly better and in 1955 worse in the case of Trading. This shows that the type of organisation into branches or subsidiaries as such has no advantage or disadvantage in general.

(3) Comparing the rates for Indian companies (Table 40) we find that Tea Plantations earned 21.5 percent and 8.8 percent in 1953 and 1955 respectively. The combined rates for Tea and Other Plantations were 19.9 percent in 1953 and 9.7 percent in 1955, i.e., slightly higher in 1953 and decidedly lower in 1955[2].

In Trading activities, Indian companies earned a much lower rate.

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[1] RBIB, May 1958, pp. 535—40, "Return on Foreign Investments in India".

[2] This seems to lend support to the hypothesis that in prosperous years smaller firms sometimes tend to do better than do the larger firms but in slack years the position is reversed.

Table 49. RETURN ON FOREIGN INVESTMENT IN INDIA IN 1953 & 1955
U.K. AND U.S. COMPANIES COMBINED

Profits-after-tax as percentage of net worth [1].

		1953	1955
Manufacturing			
(a)	Branches	7.0	5.9
(b)	Subsidiaries	14.9	13.0
	Total	*10.1*	*10.8*
Trading			
(a)	Branches	7.3	6.3
(b)	Subsidiaries	7.0	9.9
	Total	*7.3*	*6.5*
Plantations [2]			
(a)	Branches	19.3	11.8
(b)	Subsidiaries	—	—
	Total	*19.3*	*11.8*
Others			
(a)	Branches	18.8	16.5
(b)	Subsidiaries	2.8	5.1
	Total	*13.7*	*11.6*
All activities			
(a)	Branches	*12.2*	*9.1*
(b)	Subsidiaries	*11.0*	*11.8*
	Total	*12.1*	*9.9*

From: RBIB, May 1958, p. 539.

[1] Net worth treated as net foreign liability in the case of branches.
[2] Plantations here are exclusively U.K. investments.

In some of the manufacturing industries, notably in Iron and Steel, Cement, and Sugar, Indian companies earned a higher rate. For a better comparison industrywise break-up of Manufacturing would be necessary, but we do not go into such details.

7.3 Earning rates for U.K. and U.S. investments in India

a. Net profit to net worth: We pointed out that earning rates of U.K. and U.S. investments in India together were higher than those of the investments of most other countries in India. RBI gives ratios of net profit to net worth which shows that the rates of earnings of U.S. investments in India were generally higher than those of U.K. investments in India. This is shown in Table 50.

Table 50. EARNINGS OF U.K. AND U.S. COMPANIES WORKING IN INDIA, 1953 & 1955

(*Amounts in Rs crores*)

	1953			1955		
	Net foreign liability or net worth	Profits after tax	(2) as % of (1)	Net foreign liability or net worth	Profits after tax	(2) as % of (1)
	(1)	(2)	(3)	(1)	(2)	(3)
1. *U.K. companies* Manufacturing	45.21	4.09	*9.0*	94.45	8.99	*9.5*
Others	149.85	19.12	*12.8*	177.46	16.78	*9.5*
All activities	195.06	23.21	*11.9*	271.91	25.77	*9.5*
2. *U.S. companies*						
Manufacturing	4.77	0.95	*19.9*	13.52	2.70	*20.0*
Others	18.74	2.22	*11.8*	23.04	1.99	*8.6*
All activities	23.51	3.17	*13.5*	36.56	4.69	*12.8*
3. *U.K. & U.S. companies together*						
Manufacturing	49.98	5.04	*10.1*	107 97	11.69	*10.8*
All activities	218.57	26.38	*12.1*	308.47	30.46	*9.9*

From: RBIB, May 1958, pp. 539—40.

In terms of the rate of earning on net worth it is seen that U.S. companies had a decisive advantage in the manufacturing group. If the comparative position of U.K. improves somewhat in *all activities*, it is because Plantations and Others (including Mining, Managing Agency etc.) brought very high returns. The differences between the earning rates of U.S. and U.K. companies cannot be attributed to a different distribution of investments among branches, subsidiaries (controlled Indian Companies) and portfolios (uncontrolled Indian Companies) since they are distributed in almost the same proportions [1]. The differences can be accounted for by two possible factors: (1) Concentration of U.S. investments in more profitable lines, and (2) Computational bias. This latter factor causes distortions because in the case of branches we do not have net worth figures, but *net foreign liability*. This figure may be smaller for the U.S. companies due to larger dealings with Indian business houses than for the U.K. companies who deal mostly with the large network of U.K. companies and subsidiaries in India. That the second explanation is more likely is supported by evidence provided by the RBI in the same article. Consider a comparison of the ratios of net profit to total resources (i.e., total capital employed) which follows.

b. Net profit to total resources: The comparative ratios of net profit to "total resources employed" are presented in Table 51 next page.

There we see an equality in the rate of return on total capital employed i.e., net worth plus borrowings. A comparison with figures of capital (net foreign liability) in Table 50 will suggest that the ratios of equity capital to total resources were 70 percent and 60 percent respectively for U.K. and U.S. companies in 1953, and 63 percent and 47 percent in 1955. This is what the RBI calls "the difference in the capital structure of the U.S. companies in India as compared to that of the U.K. companies" [2]. It is quite possible that the difference, or at least a substantial

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[1] The following proportions are obtained for 1956 from RBIB, Sept. 1958, p. 1019:

	Branches	Subsidiaries	Portfolio	Total
U.K. investments	60%	31%	9%	100
U.S. investments	64%	31%	5%	100

[2] *Loc. cit.* What the RBI calls the "capital structure" has no reference to either the physical capital or the financial capital (the gearing ratio). It simply refers to the structure of liabilities. Our next sentence makes the maximum concession to the face value of the phrase used by the RBI.

Table 51. PROFITS AFTER TAX IN RELATION TO TOTAL RESOURCES EMPLOYED [1], U.K. AND U.S. COMPANIES WORKING IN INDIA

(*Amounts in Rs. crores*)

	1953		1955	
	U.K. Companies	U.S. Companies	U.K. Companies	U.S. Companies
1. Total resources employed	284.0	41.4	428.7	78.1
2. Profits after tax	23.2	3.2	25.8	4.7
3. (*2*) *as % of* (*1*)	*8*	*8*	*6*	*6*

[1] The term seems to be synonymous with "total capital employed".

Source: Reproduction of table 3, "Return on Foreign Investments in India 1953/1955". RBIB, May 1958.

part of it, is not a real difference in the capital structure *, but is accounted for by a comparatively higher liability of U.S. companies to Indians, than that of the U.K. companies — a fact to which the RBI also makes a reference.

7.4 *Rate of earning of foreign enterprises at home and in India*

The RBI article in question places the ratios of net profit to net worth for comparison as follows:

NET PROFIT AS PERCENTAGE OF NET WORTH, U.K. AND U.S. ENTERPRISES IN INDIA AND IN HOME COUNTRY, 1953 AND 1955

	U.K. enterprises		*U.S. enterprises*	
	In India	In home country[1]	In India	In home country[2]
1953	11.9	8—9	13.5	10—12
1955	9.5			

[1] RBIB, May 1958 cites *The Economist* as the source (total sample). Our data on partial sample indicate rates between 7 and 8 percent. See Table 45.

[2] Data collected by Federal Reserve System for 300 large U. S. corporations (Federal Reserve Bulletin, June 1956, cited by RBIB, *loc. cit.*).

* The basic element in the structure of capital is the ratio of fixed assets to working capital, or the ratio of owned capital to borrowed capital. The RBI refers to the sources of borrowing rather than to this more fundamental relation.

According to RBI, the evidence of these two years indicates that investment of U.K. and U.S. firms in India earned a higher rate than they did at home. It is of course possible to argue that while there may be some common basis for comparing the rates in India with those in U.K. [1], comparison with rates in U.S.A. may be wide of the mark since the accounting practices are rather different. The meaning of net worth is substantially the same everywhere but accounting practices with respect to historical or market value of assets would make nonsense of any comparison. Similarly with regard to depreciation. However, in the case of U.K. and India the system of capitalization of reserves corrects the figure of paid-up capital somewhat and brings it into some realistic relation with actual values of capital. Liberal depreciation allowance also corrects the figure of depreciation at historical cost.

The system of quoting nominal value of shares (paid-up capital) does not obtain in U.S.A. Therefore the whole meaning of net worth hinges on the valuation of assets. Fortunately in this case, revised figures of profit and net worth drastically reduce the U.S. rates so that it is possible to say that comparable rates for U.S.A. would be lower than the figures of the Federal Reserve System quoted by RBI, not higher [2].

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[1] *See supra*, § 5. 6. 1.

[2] George Terborgh has come out with the startling thesis that corporations in America have been over-estimating their profits during the post -war years and distributing more dividends out of a mere illusion of high profits. This is all due to deducting depreciation at historical cost instead of replacement prices, he says. He therefore makes a downward revision of profits by introducing corrections. He also revises the figures of net worth, in this instance, upwards. As a result he obtains the following rates. See how very different they are from the rates given by the Federal Reserve System which have been quoted by the RBI:

CORPORATE NET PROFITS AS PERCENTAGE OF NET WORTH—U.S.A., 1947 — 1956

Year	Percent	Year	Percent	Federal Reserve System figures quoted by RBI
1947	5.6	1952	5.2	
1948	7.1	1953	4.8	10—12
1949	6.5	1954	5.0	
1950	6.1	1955	6.1	10—12
1951	5.6	1956	5.8	
	Average 1947—56		5.7	
	Average 1923—29		5.7	

Source: George Terborgh, *Corporate Profits in the decade 1947—56* (Machinery & Allied Products Institute, Washington D.C., August 1957), p. 15. Figures have been read off a chart, and are therefore approximate.

This lends support to the contention of the RBI that the profitability of U.S. firms was higher in India than that in U.S.A. [1]. It may be added that this advantage of U.K. and U.S. investments in India may indeed be due to concentration in a few lines of highly profitable business whereas home investments of these countries are spread over a more representative group.

However, from a comparison of only two years' profit rates for two countries a generalization cannot be made firmly that (the longrun) profitability of foreign firms in India is higher than that earned by them in their respective home countries. The statements above should be read with this qualification in mind.

It appears that businessmen themselves would consider the longrun profitability, in certain growing lines of industry at any rate, to be higher in some of the low-income countries. At least one of the interpretations to the Western investor's probing for new lands of investment could be given this slant. But then the international movement of entrepreneurial capital is governed by important non-economic considerations besides the consideration of profitability, such as political security or insecurity, tax rates, etc.

Leo M. Drascher [2] considers the following as the major reasons why some U.S. enterprises are taking an in terest inprivate investments in India:

1. Difficulty of exporting to the country under existing import control regulations.
2. A possible U.S. recession leading to reduced domestic activities.
3. "Discovery of profitable opportunities to enter and develop the immense, inexhaustibly rich market".

As a matter of fact foreign investments (from Western countries) in India have been rising during the last eight years or so, as a glance at Tables 46 and 47 shows [3].

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[1] This seems to hold true even when corrections to equity figures of branches are made. Our correction to branch equity in Table 7 suggests a discrepancy which may be considered slight when we derive percentages from it.

[2] Foreign Trade Legal Counsel and Member of New York and Federal Bars, in *DUN European Review*, Zurich, October 1953.

[3] The sources of these investments are interesting. From the figures of RBI (RBIB September 1958, p. 1010) it appears that something like 45 to 65 percent of the in-

8. GENERAL CONCLUSIONS AND REMARKS

We shall now try to gain a retrospective view of the whole discussion on profitability which has proceeded on two planes.

Firstly, there is the discussion of the internal inter-industry comparison of profitability. And secondly, an effort has been made to make an international comparison with U.K. and the Netherlands for all-industry average rates of profit. (U.S. and U.K. investments in India have also been covered.)

We shall summarize the discussion and further elaborate some points of a general nature on these two planes.

8.1 The inter-industry position within the country

The broad result of the inter-industry comparison within India is (a) that certain lines of business included in the study have been generally profitable, and (b) that during the recent period of accelerated development, a new trend is noticeable in the profitability of a few lines of business.

To elaborate, (a) Cotton, Jute, and Other textiles, Iron and Steel, Cement, Sugar, Paper, Matches, Coal, Electricity, Tea and other plantations have been generally profitable during the postwar years. (b) During the second half of the postwar decade a new trend developed, favouring the profitability of Iron and Steel, Engineering, Cement, Shipping, Sugar, and Other plantations [1]. Tea continued to be highly profitable, though a slight decrease occurred in profit as a ratio of net worth. Relative decreases occurred in Cotton, Jute, and Other textiles, Paper, Matches, Coal, Electricity Generation and Supply [2].

Significance of a new trend

One cannot be certain of a trend obtained from data relating to five years. Yet the increase in the profitability of Iron and Steel, Engineering

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vestments were made out of retained profits and the rest, i.e., 35 to 55 percent were made by investments in kind. The latter form of investment must have been particularly advantageous to foreigners where interests have been acquired in Indian firms in this way. However, the point is that both these types of investment would be made only when the foreigners expect good returns in future also. This is all that can be said about this aspect of the matter.

[1] See *supra*, Table 40.

[2] *Loc. cit.*

and Shipping (as also other heavy industries not covered here) during 1951—55 may be more than a short-term and a fortuitious phenomenon. If we consider the demand side only, these industries show great possibilities of expansion due to the vast developmental activities initiated by the Five Year Plans. The same cannot be said with equal confidence about sugar, plantations and other consumption industries.

The reason is that the internal market for consumption goods is limited by the lack of purchasing power of the overwhelming majority of the population. No doubt, if per capita income rises significantly in the next 10 to 20 years and the population keeps increasing as at present[1], the *prospects* of a steady expansion of consumers' goods industries are also good. In addition, some of the essential mass consumption goods like cotton textiles etc. are almost certain to be consumed on a larger scale as a result of the development of the heavy industries. In fact, this is the essential condition which will guarantee that the initial push given to the economy by the introduction of heavy industries will be sustained[2]. But this is a degression which will take us away to quite another, though highly important, question viz., the question of planned growth.

Profitability and expansibility

Reverting to the question of the effects of expansion of heavy industries, it is necessary to distinguish expansibility from profitability. It is well known that in the past, two types of industries in India had both a profitable and an expansive horizon before them. These were:

(i) Mass consumption articles like cotton textile goods with internal market as the major clientèle; and

(ii) export articles like tea, jute textiles and processed raw materials for industries needed by metropolitan Great Britain and other industrially advanced countries. Incidentally, it is significant that Indian capital and enterprise predominate in the first type, while foreign — mainly British — capital and enterprise predominate in the second type. The market for the second type of industries is highly unstable [1], while that for the first type relatively much more stable. Therefore we shall confine our remarks on the question of expansibility and profitability to the first type only.

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[1] A rise in per capita income is the more important incentive. Population increase is not a necessary condition for an increase in demand, but if even with a constant per capita income, population increases, the effect will be a rise in the aggregate demand (assuming a constant consumption function — a rising consumption function will only accentuate the effect).

[2] For a vast country like India, we are only speaking of the internal market. It is of course quite conceivable that export of producers' goods and import of some of the consumption goods can work in conjunction.

Expansion and demand elasticity

Now, an expansion in the production of consumption goods may be viewed as a function of two types of demand elasticities, viz., income-elasticity of demand, and price-elasticity of demand.

This means that when income increases, demand for consumption goods increases, and therefore more consumption goods can be produced without reducing price and profitability, cost of production and other things remaining the same.

Or, assuming no change in income, demand may increase if price is lowered, and in this way expansion in production can take place. Costs and other things remaining the same, it would appear at first sight, that in this case expansion would occur at the expense of profitability. This would indeed be so if new entrants forced a competitive price-cutting without evoking the beneficial response of a more efficient handling of the firm.

On the other hand, if the increased demand induced by a lower price is matched with a quicker turnover — that is to say, by the maximum utilization of capital [2] — profitability need not fall. Indeed, it may very well increase. More realistically, the result would almost certainly be that profitability on the total turnover (annually, or over the life-time of the capital equipment) would be higher [3].

The latter type of response [4] seems to have prevailed in the industrially advanced countries [4] sometime before the advent of monopolistic domination, and created that healthy fibre of entrepreneurial efficiency which got woven into the strong texture of a lasting social tradition. Because of the development of such a tradition of entrepreneurship, even in the monopolistic industries and government enterprises that grew up later (no doubt, also a natural outgrowth of the earlier industrial system), certain basic standards of efficiency are maintained.

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[1] U.N. 1952, (ST/ECA/15), *Instability of Export Markets of Under-developed Countries.*

[2] It is obvious that utilization of capital presupposes a rational handling of labour, raw materials, etc.

[3] This is an extremely simplified model. That in a developing economy a mild rise in general prices would normally occur is quite compatible with the model of development here sketched.

[4] This response was often facilitated by the existence of a cheap labour force so that the absolute margin of profit generally remained high.

The development of the type of tradition that we are speaking of is inseparably linked with the simultaneous expansion of employment, income, consumption and saving. In this process, the growth of industry is both effect and cause. The whole process is cumulative and complex, and is part and parcel of the process of economic growth itself.

The quality of entrepreneurship in India

Fixing our gaze upon the entrepreneurial side of profitability in India, we may remark that high rates of profit have often been sought, not by the second type of expansion of production, but by the first type of response to demand — particularly during and after the Second World War.

True, postwar conditions were extremely difficult, especially the problem of replacements and repairs — not to speak of expansion — in the major Indian industries like the Textiles, and under those difficult conditions [1] most of our industries showed remarkable resourcefulness in utilising their financial resources rather efficiently, as we have noted at the end of our comparison between net profit as a rate of net worth and gross profit as a rate of total capital employed. But it is also true that the black-market practices that developed during the War, remained entrenched too long and show signs of becoming almost a tradition for quite a large number (fortunately not all) of our industrialists. The early grafting of oligopolistic characters in Indian industries also made its contribution to this tendency. This is what in another context we have characterized as the quick-profit-seeking type of enterprise which predominates in the low-income countries [1] [2]. Fortunately, its counterpart — the steady-profit-seeking type of enterprise has also been developing in India during the last three decades or so (like iron and steel, etc.) and are now making rapid progress.

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[1] For a detailed statement of the difficulties of the cotton textile industry see S. D. Mehta, *The Indian Cotton Textile Industry — An Economic Analysis* (The Textile Association India, Bombay 1953), *passim*, especially pp. 200—212.

To round off our discussion of profitability of business in India we touched the question of expansibility and were led on to make very broad observations on the question of entrepreneurial efficiency. The picture would remain incomplete if we did not touch at least in the same broad sweep, upon two other related things, namely, (i) the cost of raw materials, and (ii) the cost of labour.

It is well known that both these are generally much lower in India than in the high income countries. This has two distinct consequences.

Taking the internal market only, and assuming that there is no dumping from outside, the theoretical limit to profitability would be imposed by the limited size of the market due to the poverty of the people (lack of effective demand). That some of the indispensable articles of mass consumption like cotton textiles, matches, etc. are produced very profitably, is explained by the fact that in a vast country like India, even a

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[1] See the writer's essay, *Levels and Fluctuations of Dividend in Four High-income and Low-income Countries* (Netherlands Economic Institute, Rotterdam), § 1.6 and § 1.7.

[2] An important feature of this type of enterprise is the rate of infant mortality in corporate ventures and the risk involved. These were rather high upto the end of the war. A comparison of the rate of capital lost due to failures as a percentage of capital invested in India with that during the ending years of the 19th Century in England shows that the rate of loss was not too high in India. See B. R. Kishore, "Risk of Investment in Corporate Ventures in India", *Indian Economic Review*, February 1952. Kishore points out that the rate of capital loss in Britain during 1893—1902, 2.7 percent as given by McGregor (*Enterprise — Purpose and Profit*, pp. 110—112), might have been slightly less than the figure actually quoted if it was computed on the same basis as Mr. Kishore's figures for India. Mr. Kishore's figures for four eight-year periods were:

1914—22	*1.70*	1930—38	*3.19*
1922—30	*3.63*	1938—46	*1.32*

But we think the comparison becomes favourable to India if we see this rate of capital loss in relation to the long-term yield on consols. In India this yield was higher (sometimes more than double) for all these periods whereas in Britain, the yield on consols was even lower than the rate of capital loss. On the other hand, the *economic rate of return* on risk capital, which is the sum of the rate of capital loss and the yield on consols, was certainly lower in Britain — a situation more favourable to new investment.

minimum low per capita demand adds up to quite a large total. Even semi-luxury articles like sugar have in this way quite a sizable demand.

The real test of productive efficiency would lie in how far this cheapness of raw materials and labour enables Indian products to compete on the export market (or even internally, with imported goods provided that these are not "dumped" in some way or the other). We know that export industries like tea, jute (mostly foreign industries) have been generally doing well over a long period. Among products of Indian enterprise, cotton textiles have on the whole done very well. And cotton textiles are a major industry constituting one-fifth of all the manufacturing industries in terms of paid-up capital [1] and nearly one-third in terms of workers employed. [2] An outstanding example of weak competitive strength is that of sugar. But here, the raw material — sugar-cane — is dearer than that in the other important producing (also low-income) areas like Java, islands of the Caribbean region (notably Cuba), etc. Perhaps protection has also been afforded too long, which may have protected entrepreneurial inefficiency instead of nurturing efficiency to maturity.

8.2 Comparison with other countries

The scope of our investigation in this field was restricted to national averages of a few countries so far as the main study (of the postwar period) is concerned. For a comparison with the U.K.-companies alone were we able to compile figures from company accounts and balance sheets, etc. on comparable definitions. Adjustments for valuational changes were not checked up for any country with regard to net worth and total capital. Even so, the comparison is not without its use because valuational errors of within 10 to 20 percent would have only a very slight effect on the *rate* of earning [3] — a difference of only 1 to 2 percent. It may be recalled that we have not considered differences of this order as conclusive evidence of a difference.

(1) We saw that general profitability in U.K. was about equal to

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[1] See Table 38.

[2] Stat. Abs. gives total average daily factory employment in 1952 as 24 lakhs. For the same year CIM figure of workers as 6.5 lakhs; correcting for coverage it comes to 6.8 lakhs.

[3] See Ralph C. Epstein, *Industrial Profits in the United States* (NBER, N.Y. 1934), Chapter 45, especially pp. 538—40.

that of the RBI sample companies in India during the postwar period studied. In the Netherlands (and possibly West Germany and a few other European countries) it was much higher.

(2) The U.K. and U.S. enterprises in India earned more than the general rates of earning in their own countries.

(3) The rates of earning of these foreign enterprises in India were definitely higher than those of Indian companies only if we take the all-industry averages of Indian companies. If we consider specific lines of business, Indian companies also appear to earn about equally well. Tea plantations may be cited as an example. Mining seems to be a notable exception.

(4) This brings us to the question of a more fruitful line of comparison which a full-scale study of comparative profitability should undertake:

(a) It seems to lie within the field of instituting a comparison of *specific lines* of business in different countries. It can be seen from Appendix XVI that for U.K. companies operating abroad, a few very highly profitable lines of business can be distinguished. The countries from which British overseas investments earn the highest return are the very countries in which one or a few of these profitable lines of British investments are concentrated. The lower profitability of British investment in some of the high-income countries like Australia, Canada and New Zealand (profitability of British investments in the United States was moderately high) may mean three things either separately or in combination: (i) Investment may be concentrated in the low-yielding lines of business; (ii) high labour cost coupled with competition from indigenous business; and (iii) after all, it might be just a question of higher rate of reinvestment of profits in these countries than in others, for the profitability that people are wont to talking about[1] in connection with British overseas investments refers to nothing but the amounts actually withdrawn to the home country.

(b) Within the country, an inter-industry comparison is instructive. We have briefly reported on the position in India.

(5) Talking of high or low profitability of a country or of a line of business it is easy to pass judgements on entrepreneurial quality rather

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[1] For instance, Prof. J. Fred Rippy, "Point Four Background: A Decade of Income From British Overseas Investment", *The Journal of Business of the University of Chicago*, October 1953,. p. 236 *et passim*.

lightly. It should be remembered that taking the same lines of business, there may be widely varying conditions of profitability even when under the same general management because of location, quality of labour, and so on [1]. It is of course possible to judge the quality of entrepreneurship in different countries and in different industries and notice a difference, but it should be done with caution, and never on the criterion of profitability alone; — other generally known factors of personal quality, etc. must be taken into account.

THE PERSPECTIVE OF CONNECTING PROFITABILITY AND CORPORATE SAVING PROPENSITY

The next chapter is devoted to a study of corporate saving propensity. We undertook a study of profitability and not just the total profits [2] because this can be the only basis of comparing profit performance of different countries. Such a study is worthwhile in itself. However, our main purpose is to see whether and how far the international differences in average and marginal corporate saving propensities can be explained in terms of differences in profitability. In formulating this purpose we took into account the available material on saving propensities in some high-income countries. Since for our country hardly any work has been done in this field, it is natural that we want to make a comparison with other countries. This is why although we found that an inter-industry comparison of profitability (within the country) was more rewarding, we persisted in trying to make an international comparison. Due to the constraints of available data it will not be possible to investigate the saving propensities of identical sets of countries or identical types of investment (like foreign investments in India and in home countries). Comparison with U.K. and U.S.A. will be our main pre-occupation. The Netherlands will also be included.

Inter-industry comparison will be confined to some of the representative types of industry in India.

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[1] See P. S. Lokanathan, *Industrial Organization in India* (George Allen & Unwin, London 1935), pp. 290—95, especially p. 295.

[2] Marginal propensity could be obtained also by correlating savings with profits instead of profit rates. More about it in the next chapter.

CHAPTER SIX

CORPORATE SAVING PROPENSITIES

1. DETERMINANTS OF CORPORATE SAVING

1.1 The theoretical proposition

It is obvious that the relation between profit and business saving is a very close one. Profit is the source of business saving; indeed it is the source of much of personal saving also [1]. It is the most fundamental but not the only determinant of business saving. Other factors determining the savings of corporations are in many respects distinct from those determining the savings of unincorporated enterprises. Even where the same factors are common to both — e.g., net income, business outlook, etc. — the way these factors operate is again distinct.

In the case of unincorporated enterprises profits [2] minus consumption expenditure [3] equal saving [4]. But in the case of corporations saving is influenced by consumption requirements only partly, and that too, indirectly. The net profit of a corporation is disbursed between dividends (payments [5] to stockholders) and reserves, which are nothing but accumulated savings (or retained profits). It is the former (dividends) to which the influence of consumption requirements could be traced [1]. The disbursement itself is made according to the corporate financial *policy*, bearing on the questions of distribution and retention. This *policy* is governed by a number of factors which may be grouped to form two distinct types of forces. These are the forces of the stockholder's pressure for distribution and the entrepreneur's (or the management's) pressure for retention. In this context corporate financial policy is a result of the mutual balancing of these two forces. The barest outline of this hypothesis is given below [2].

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[1] That part of savings from proprietary incomes which is not business saving, and the savings out of dividend income.

[2] Profits after-tax.

[3] Or the parameter of the relation between the two, called the *propensity to consume*.

[4] Profits and the propensity to consume determine the savings of unincorporated business only statistically. The propensity of proprietors of such business to consume may itself be influenced by the propensity to invest in their own business. Factors affecting the propensity to consume have been listed by Keynes (*op. cit.*, Chapters 8 & 9): A group of factors directly connected with income are listed as "the objective factors" and another connected directly with psychological conditioning as "the subjective factors". A full discussion of the psychological factors affecting personal saving decisions is to be found in George S. Katona, *Psychological Analysis of Economic Behavior* (McGraw-Hill, New York 1951).

[5] Therefore, dividend may be viewed as expenditure. The general definition of saving in § 1.3, thus applies to business saving also. Any saving made by the stockholder out of his dividend-income is then treated as personal saving.

Stockholders' pressure for distribution: The intensity of the pressure depends upon (1) the financial status of the stockholders, (2) their consumption habits (thrift or extravagance), (3) the state of their confidence in the soundness of the company, and (4) the nature of the company law.

Entrepreneurs' pressure for retention: Entrepreneurial pressure for retention is governed by (1) the requirements of certain specific and general reserves, and (2) tax incentives (or dis-incentives) and other governmental measures. Of the requirements of specific reserves, the requirements of expansion has been specially isolated by Dobrovolsky [3]. Over and above such specific reserves as depreciation reserve, taxation reserve, dividend equalization fund, etc., the corporate directorate (or management) finds it necessary to keep a general reserve against unforeseen contingencies.

It is not possible to statistically identify all the factors enumerated above. Nor is it necessary for statistical purposes. But it is necessary to have a clear grasp of the *process* of the financial decision while working with a few statistical determinants so that statistics does not lead us by the tail.

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[1] Thus consumption requirement enters the scheme of corporate saving through the consumption requirement of dividend receivers. Of course, consumption is only *one* of several motives behind receiving a dividend income. The dividend receiver may, for instance, want to be free to invest his *saving out of dividend income* wherever he likes.

[2] For a fuller exposition of the hypothesis see the writer's paper on dividends already mentioned.

[3] Sergei P. Dobrovolsky, *Corporate Income Retention 1915—43* (National Bureau of Economic Research, Financial Research Program Studies in Business Financing, New York 1951), pp. 35—36 *et seq.*

1.2 *The statistical determination*

Statisticians have used only a few variables that pertain directly to entrepreneurial decisions to "explain" corporate profit retention.

a. Tinbergen, Modigliani: As in many other fields of quantitative economics, Tinbergen was one of the earliest to give a lead in this field. He "explained" fluctuations of dividend in the United States 1919—32 in terms of current profit, lagged profit and lagged surplus [1]. Several notable works later appeared in the United States which more or less spelled out the generalized Tinbergenian dividend function of the form [2]:

$$D = \delta_0 Y_{Bc} + \delta_1 Y_{Bc\text{-}1} + \delta_2 S_{-1} + \varkappa$$

where D stands for total dividend, Y_{Bc} for total corporate net profit, S for total corporate surplus, δ for the relevant regression coefficients, $\varkappa$ for the intercept.

Tinbergen found "a high correlation and a rather high influence of the reserve position". The fitted equation was:

$$D = 0.151 Y_{Bc} + 0.083 Y_{Bc\text{-}1} + 0.075 S_{-1} + (\varkappa) \qquad \text{(i)}$$

Subsequently, Franco Modigliani expressed satisfaction with Tinbergen's approach and reported the following result with high correlation [3] for the period 1921—40 excluding the years 1936—38 when a retained profits tax was in force:

$$D = 0.67 + 0.15 Y_{Bc} + 0.18 Y_{Bc\text{-}1} + 0.062 S_{-1} \qquad \text{(ii)}$$

For the postwar period, says Modigliani, it "does not hold at present and will not hold in the near future."

A point that will shortly come up for discussion in this chapter may be noted: Both the equations indicate a marginal propensity of corporations to save with reference to aggregate (national) profits which is as high as 70 to 80 percent.

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[1] J. Tinbergen, *Business Cycles in the United States of America*, 1919—32 (League of Nations Economic Intelligence Service, Geneva 1939), pp. 115—16.

[2] *e.g.* the works of Franco Modigliani, Sergei P. Dobrovolsky, and John Lintner. The latter two, however, introduce significant improvements which are discussed by us presently. Tinbergen does not use an intercept because he expresses his variables as deviations from their mean values.

[3] Modigliani, "Fluctuations in the Saving-Income Ratio: A Problem in Economic Forecasting", *Studies in Income and Wealth*, Vol. XI, Part V (N.B.E.R., N.Y. 1949), pp. 413—14. Reported correlation coefficients are high both for the multiple correlation and for the partial correlations. See *ibid*, p. 413 and notes.

b. Dobrovolsky & Lintner: Sergei P. Dobrovolsky and John Lintner later used the same type of equation but directly took corporate saving as the variable to be explained and introduced new variables in addition to current profit. Dobrovolsky dealt with sample data while Lintner (presumably) used aggregate national data. We shall therefore give Lintner's result first.

Lintner[1]: Lintner's equation for retained earnings for the period 1918—51 (without the years 1936 and 1937) was[2]:

$$S^c = -346.52 + 0.865\, Y_{Bc} - 0.721\, D_{-1} \qquad \text{(iii)}$$

where S^c stands for corporate savings or retained earnings, Y_{Bc} for corporate profit, and D for dividend[3].

He reports extremely satisfactory results with respect to the coëfficients of multiple and partial correlations and the von Neumann test for randomness of deviations between actual and predicted values[4]. The correlation is reported to be satisfactory for the following sub-periods also: 1918—41, 1929—41, 1942—51, and 1946—51 respectively for the interwar period, the 'thirties, the 'forties, and the postwar years.

This indicates a greater general validity of the equation.

Dobrovolsky[5]: Dobrovolsky has made the most intensive study of corporate profit retention from sample data. The novelty of his approach consists in a detailed analysis of corporate retention policy at the micro-

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[1] "Determinants of Corporate Savings", *Savings in the Modern Economy — A Symposium*, ed. W. W. Heller, F. M. Boddy and C. L. Nelson (University of Minnesota Press, Minneapolis 1953 — Geoffrey Cumberlege: O.U.P. — London, Bombay, Karachi). For uniformity of exposition we have changed some of his notations.

[2] Net profits after tax and retained earnings taken after inventory valuation adjustment. Without this adjustment the equation is slightly different, viz.,

$$S^c = -285.37 + 0.883\, Y_{Bc} - 0.758\, D_{-1};$$ ibid, p. 253n.

[3] The significance of lagged dividend is simply that the company is generally anxious to maintain the previous year's level of dividend. Even in lean years it does not want to distribute less because that shakes up confidence in the company's stability, and also because of the shareholders' pressure. And in a year of high profit the company is cautious not to raise the dividend too high because once it is raised it is difficult to cut it down in the next year. Only in a period of rising profits and high optimism does the dividend level rise steadily. See Chart 1 (p. 184).

[4] *Ibid.*, p. 253 and notes.

[5] Sergei P. Dobrovolsky, *Corporate Income Retention 1915—43*, (N.B.E.R. Financial Research Program Studies in Business Financing, New York 1951)

economic level and then trying out statistical correlation of variables chosen on the basis of that analysis.

Operating with the same variables as used by Tinbergen, he tried out correlations for aggregate data 1923—43 by dollar amounts and for sample data of large companies and 1916—43 by expressing the variables as percentages of net worth. He found that no definite significance could be attached to lagged profit (Y_{Bc-1}) in either case, and no significance to lagged surplus (S_{-1}) in the second case[1].

He therefore looked for variables that actually enter the decision of corporate management to distribute and (inversely) to retain profits. In addition to current net profit, he introduced dividends of the preceding year (D_{-1}) and operating asset expansion (E) for the current year — all variables expressed as ratios of net worth. For the period 1923—43, he obtained the following satisfactory regression equation on his sample data of 45 large companies (we use dashed notations to indicate that the variables are expressed as ratios):

$$\begin{array}{l} S'_c = \underset{(\pm\ 0.05)}{0.70\ Y'_{Bc}} - \underset{(\pm\ 0.11)}{0.35\ D'_{-1}} + \underset{(\pm\ 0.05)}{0.11\ E'} - 1.42 \end{array} \qquad \text{(iv)}$$

(The figures within brackets indicate the standard errors of the estimated regression coëfficients).

For the sake of comparing *marginal* rates of retention it is of some interest to point out that Dobrovolsky obtained the following results by using Tinbergen's variables : [2]

All American corporations, 1919—32 (variables expressed in dollars):

$$S_c = 0.85Y_{Bc} - 0.55D_{-1} + 0.05Y_{Bc-2} - 0.08S_{-1} + 0.04S_{-2} \qquad \text{(v)}$$

Large manufacturing corporations, 1923—43 (variables expressed as ratios of net worth):

$$S'_c = 0.72Y'_{Bc} - 0.25D'_{-1} + 0.02Y'_{Bc-2} - 0.07S'_{-1} + 0.02S'_{-2} - 17.55 \qquad \text{(vi)}$$

Note that in equations (iv) and (vi) which deal with the same *sample data* of large corporations and express the variables as ratios of net worth, *the marginal rate of retention with respect to current profit is virtually the same*[3]. The difference between the coëfficients of D'_{-1} is also not very significant considering that (i) the standard errors are relatively high, and (ii) the additional variables are different i.e., E' in eq. (iv), Y'_{Bc-2}, S'_{-2} and S'_{-1} in eq. (vi).

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[1] *Ibid*, pp. 39—40.

[2] *Ibid*, p. 42.

[3] Because statistically the difference is not significant at all.

On the other hand, when *all American corporations are taken* into account, as in equation (v), *the marginal rates of retention are higher*[1] with reference to both current profit and lagged dividend. It might be argued that this may be caused by the difference in the reference period and this result by itself does not give any definite indication that the difference is caused by a difference in the size of the units involved in the two sets of data. However, two additional evidences strengthen the presumption that differences in the size of the units may have something to do with the differences in regression coëfficients: (1) We notice that Modigliani's equation (equation (ii) above) for the period 1921—40 covering all American corporations yields exactly the same regression coëfficient for current profit, when the equation is transposed, as equation (v) for the period 1919—32. Lintner's equation (equation (iii)) for the period 1918—51 presumably covering all American corporations also yields substantially the same high regression coëfficient. (2) Secondly, we have further evidence with reference to samples of different size units in Dobrovolsky's study. For the same period, 1917—43, Dobrovolsky got the following equations (simply correlating retained profit with current profit — both variables as percentages of net worth):

(a) 45 large corporations: $S^{c\prime} = -3.30 + 0.74Y'_{Bc}$
(b) 73 small- and medium-sized corporations[2]: $S^{c\prime} = -3.34 + 0.81Y'_{Bc}$

Nobody would suggest that the difference between the marginal saving propensities of the large and the small corporations is very appreciable. But one significant conclusion needs must be drawn. Factual evidence shows that *the marginal saving propensity of smaller corpora-*

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[1] Assuming that the standard errors are of the same order relatively. Tinbergen does not give this supplementary measure of the reliability of coëfficients.

[2] For a sample of 381 small corporations, however, the regression coëfficient with respect to current profit is 0.75 only ($S^{c\prime} = -2.89 + 0.75Y'_{Bc}$). But here the period covered is much shorter (1926—36) and therefore the number of observations smaller. Whether this near-coincidence of the coëfficients for large and small corporations is due to sample variance or period variation, it is difficult to say. We have not carried out any test on this point.

tions can be higher than that of larger ones. Our data do not permit us to assert that it is necessarily higher; but *the possibility* that it can be higher is certainly indicated [1]. If there is any fixed theoretical bias to the contrary, we must disabuse our mind of such a bias and seek a correct theoretical appraisal. We shall try to do this when we come to comment upon a similar result obtained by us on Indian data (§ 6.5.4, pp. 195—96).

1.3 The nature of statistical "explanation"

We saw that several alternative sets of variables can each of them yield a high correlation. The one common variable which has statistically [2] the most preponderant influence on corporate saving is of course the current profit.

Statistical correlation does not establish any causal nexus. Only when a high degree of statistical correlation is supported by a sound economic theory and/or by evidence of economic practice could we consider a regression equation to have a general economic significance. Otherwise the so-called statistical "explanation" might offer spurious economic explanations indeed.

1.4 Choice of variables on economic grounds

On economic considerations, current profit, the preceding year's dividend and current expansion requirement (as measured by the expansion of operating assets in the current year, for instance) could be considered the explanatory variables. Of these, dividend requirement (indicated by preceding year's dividend) and expansion requirement may be said to represent respectively the pressures from the stockholders and from the entrepreneurs mentioned in § 6.1.1 above. Current profit is the most fundamental variable of all.

With these remarks we skip over any detailed examination of the various equations presented above. Suffice it to say that there is a general tendency, particularly after the thirties, to keep dividends relatively stable. It is rather interesting that even in America where the management enjoys considerable independence in the matter of profit retention, dividend is a steadier element than corporate saving [1]. We shall soon see how the influence of an extremely steady course of dividend worked in postwar India.

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[1] The possibility in fact runs either way. See Table 35 towards the end of this chapter.

[2] And also on economic grounds, as we shall presently see.

2. SAVING PROPENSITY: TYPES AND THEIR DEFINITIONS

It is customary to speak of an individual's — and by extension, the community's, or in the matter of saving, also the corporation's (viewed as a distinct personality [2]) — propensity to consume, to save and so on [3]. Propensity is an *inclination*, a *tendency* [4]. It carries with it the connotation of a certain amount of stability in the functional relationship between two variables that express the propensity.

In economic literature it is common to speak of two types of propensity — average and marginal. Let us explain these in the context of saving, with illustrations from the foregoing survey of statistical determination of corporate saving. We take marginal propensity first.

Marginal propensity: In the regression equations for corporate saving we find that there is a regression coëfficient for each one of the independent variables. The regression coëfficient means that with a unit increase of the independent variables, increase of a given proportion measured by the respective regression coëfficient of each of the independent variables (positive or negative according to the sign) is associated with the dependent variable. Mathematically speaking, therefore, corporate saving can have a marginal rate of (propensity to) increase or decrease with respect to each of the independent variables with which it is functionally related. In economics, however, *only the increase in savings resulting from a unit-increase in profit or income is called the marginal propensity to save.*

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[1] The fact that Tinbergen (and also Modigliani) found the influence of lagged surplus position to be of importance to dividend distribution seems to have been due to some special circumstances obtaining for the greater part of the period of 1919—32. See Dobrovolsky *op. cit.* pp. 38—39. It seems that during the forties these were not operative.

[2] Distinct personality not merely in the sense of a legal fiction but as a group entity where a group of men decide upon the corporation's financial policy.

[3] *e.g.*, "The propensity to monopolize" which is the title of a recent publication in the Economic Analysis Series, Amsterdam. Indeed we might even speak of a "propensity to generalize", an idea on which Francis Bacon offers much comment!

[4] See Oxford English Dictionary.

In the equations given in the previous section the measure of corporate marginal saving propensity is given by the regression coëfficient of the variable Y_{Bc}, the current corporate net profit. It follows that the marginal propensity to save remains constant over the period for which the linear regression holds.

Statistically, it is possible to obtain regression equations from cross-sectional observations also and then the regression coëfficient of profit or income would indicate a marginal saving propensity with reference to differences in the size of the units. Generally, however, marginal saving propensity is expressed with reference to time.

Average propensity: If we take a time series, the average propensity to save would be the average rate of saving for the entire period, so that it gives the average tendency around which the annual rates fluctuate [1]. It is in this sense that it is somewhat stable as a *tendency*. When this average tendency over a period is considered normal it can be called the average propensity. It is in this way that a distinction between the usage of the words "rate" and "propensity" should be drawn.

There is a second way, however, in which "average propensity" is very frequently conceived. Using the words "normal" and "average" interchangeably, the average (saving rate) of a number of units (individuals or companies) in any given year is implicitly treated as normal and in this sense it is customary to speak of an average propensity (to save). Compare the following statement of Dobrovolsky for instance: —

"Our simple linear regression equation implies that the *marginal* propensity to retain remained constant while the *average* propensity to retain increased with the rate of profit [2]".

Clearly, "average propensity" here refers to the average of a number of companies in a given year. It is a *cross-section average* instead of a *time-series average*. Such a usage is not consistent with the usage of the "marginal propensity" which is more meaningful when constructed from a time-series. But such a usage is pretty common. Pretty common also is the use of the word "propensity" where simply a "rate" is meant. From our clarification above it should be obvious that while every propensity is a rate, every rate is not a propensity. The word "propensity" should be used only when a stable tendency or norm is meant. There is no objection if cross-section data is utilized carefully with a clear idea of the meaning of "propensity". Unfortunately, such clarity is usually not shown.

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[1] Provided, of course, that savings are positive. The aggregate savings of a country as well as savings over a sufficiently large number of years are generally positive and therefore the statement holds.

[2] Dobrovolsky, *op. cit*. p. 22n.

It is by now apparent that sometimes it is safer to use the words "average rate" than "average propensity".

Average propensities generally change from period to period. This is plain enough. It should be borne in mind that even marginal propensity need not remain constant for all times. When structural changes occur, these constants themselves also change [1]. This seems to be demonstrated by the recent shift in the United States towards a lower marginal propensity to save (See below § 6.5.3, p. 193. Also Table 53).

3. THE AVERAGE RATES OF CORPORATE SAVING IN POSTWAR INDIA

The average rates of corporate saving for the period 1946—55 can be directly calculated from sample data without recourse to stepping them up for total coverage. This is done in Table 52 for two sets of samples with two overlapping years. Average rates for the whole period obtained by linking the series are also shown.

The average rate of corporate saving for linked series for the whole period of 1946—55 was some 39 percent, the difference between the rates for the two linked series being negligible. The large difference between the average rates for the two overlapping sub-periods, 1946—51 and 1950—55, is thus less due to the difference in the scope and coverage of the samples (although it might account for a slight difference) than due to the peculiarities of the sub-periods.

This average rate of nearly 40 percent over the postwar decade may be viewed as the average corporate saving propensity for this period [2].

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[1] This is why the elaborate attempts, say, of Dr. N. V. A. Narasimham's *Short Term Planning Model For India,* which base themselves on regression coefficients of a predominantly inter-war period series, may very well turn out to be a misleading "model".

[2] It is interesting to note that an analysis of data furnished by the T.E.C. reveals that over the years 1946—51, the average rate of saving by 500 private limited companies was virtually the same as that of the public limited companies.

Table 52. PROFITS AFTER TAX, DIVIDENDS, SAVINGS AND SAVING RATE FOR SAMPLES OF PUBLIC LIMITED COMPANIES, INDIA 1946—55

(Amounts in Rs. crores)

Year col.	Sample with number of companies (1)	Profits after tax (2)	Dividends (3)	Savings (profit minus dividend) (4)	Rate of Saving (*4*) *as percentage of* (*2*) (5)
1946	TEC(492)	27.80	15.51	12.29	*44.2*
1947	,,	24.40	15.11	9.29	*38.1*
1948	,,	31.30	15.28	16.02	*51.1*
1949	,,	19.59	15.08	4.51	*23.0*
1950	,,	30.37	17.89	12.48	*41.1*
1951	,,	39.02	20.60	18.40	*47.2*
Total 1946-51		172.48	99.49	72.99	*43.3*
1950	RBI (750)	38.54	23.74	14.80	*38.4*
1951	,,	51.55	26.99	24.56	*47.7*
1952	,,	31.03	24.46	6.57	*21.3*
1953	,,	38.60	26.07	12.53	*32.4*
1954	,,	45.80	29.22	16.58	*36.2*
1955	,,	59.55	32.22	27.33	*45.8*
Total 1950-55		265.07	162.70	102.37	*38.6*

Average rate of saving by linked series for the whole period, 1946—55:	
A. TEC series extended forward [1]	*39.4*
B. RBI series extended backward [1]	*39.0*

Sources: (a) TEC Report, Vol. I, p. 125 (b) RBIB, September 1957.

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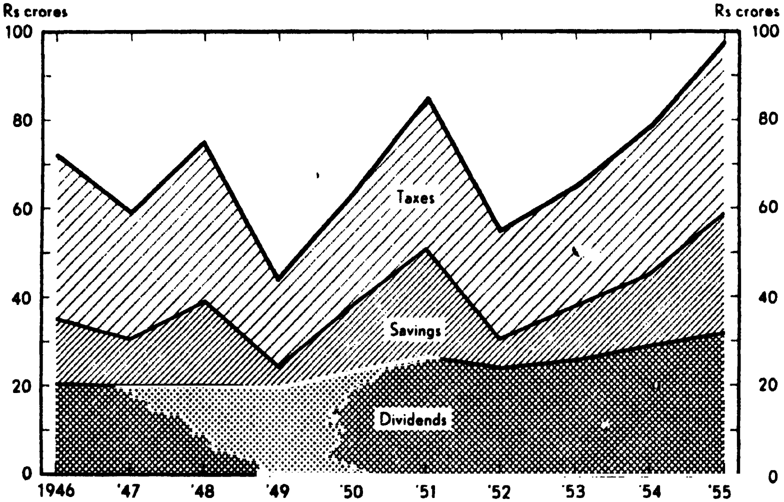
[1] Extension forward is done by linking on the basis of the proportions obtained for the year 1951; backward by linking on the basis of the proportions obtained for the year 1950.

4. A GRAPHIC VIEW OF PROFITS, DIVIDENDS AND CORPORATE SAVINGS

It will be useful to take a look at Chart 1 in which the movements of profits (before and after tax), dividends and retained profits are shown graphically with corrections for linkage. We see that the absolute level of dividend remained fairly steady during the period so that the absolute level of corporate savings reflected the fluctuation of profits after tax. Naturally, retained profits and dividends *as ratios of net profits* moved inversely. This obvious point is brought out visually in Chart 2. It is significant that the peak years of profits are also the peak years of corporate saving in absolute amounts as well as in terms of percentage of net profit, but the fluctuations of the corporate saving ratio (saving as percentage of net profit) are more pronounced; — the slopes of peaks and troughs are steeper. The reason is the relative steadiness of the absolute amounts of dividend so that dividend as percentage of profit is low in years of high profits and high in years of

Chart 1

Corporate profits (before and after tax), **dividends and savings, India 1946-1955** (backward extended R.B.I. series [1])



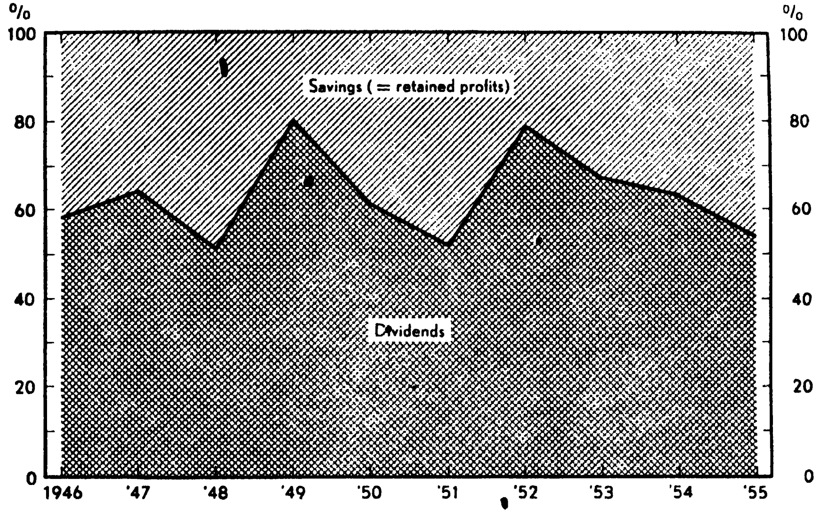
[1] For explanation see § 6.5.1. (b)

Savings + Dividends = Profits after tax

Savings + Dividends + Taxes = Profits before tax

Chart 2

Dividends and savings as percentages of corporate profits after tax, India 1946-1955 (backward extended R.B.I. series)



low profits [1]. Inversely, corporate saving as percentage of profit is high in years of high profits and low in years of low profits.

5. CORPORATE MARGINAL PROPENSITY TO SAVE IN POSTWAR INDIA

In this section we work with the sample data for all industries. This constitutes our major investigation. Industrywise investigation will be made somewhat more sketchily as an Addendum in the last section. (Section 7).

5.1 Statistical

Our basic sets of data for calculating the corporate marginal propensity to save are the ones presented in Table 52. These are all we have. Each set contains six observations and altogether we have observations for ten successive years with partial overlappings for two years. Linkage for these two years is not perfect.

The percentages saved for each sample for the overlapping years are:

	TEC	RBI
1950	41.1	38.4
1951	47.2	47.7

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[1] There were no losses in the aggregate in any year though there were losses in a few individual industries. See Table 54 towards the end of this chapter.

Linkage is therefore somewhat problematical. Observations for each set seperately, on the other hand, are too few to place reliance on the regression coëfficients, unless supplemented and checked by other measures. Thus, our analysis is not as delightfully simple as, for example, Colin Clark's [1] was. The likelihood that the second sample (RBI) includes the first (TEC) and the fact that the RBI sample is a larger one indicates that it extends to smaller units. Indeed, the average size of paid-up capital for the units of TEC sample is Rs. 50 lakhs whereas that for the units of RBI sample is Rs. 40 lakhs. This difference in size might introduce a difference in the retention practice, but the difference does not appear to be systematic in terms of saving as a ratio of profit as seen in the above rates for two overlapping years [2].

We tried out the following basic sets of linear correlations by the least square method. Detailed results are given in Appendix XVII. The equation numbers refer to the numbers in that Appendix.

It is convenient to describe the symbols used for the variables in the equations to be presented:

S_c stands for corporate saving or retained profit (profit after tax minus dividend)
Y_{Bc} „ „ corporate net profit after tax
W „ „ corporate net worth (paid-up capital + all reserves + balance of profit)
D „ „ corporate dividend
L „ „ level variable, accounting for a possible effect of the imperfection on the linking process, i.e. of a hidden flaw in the series, taking the value 0 for the years up to but not including the link year, and 1 from the link year onwards. (See Appendix XVII) L may also represent a possible effect of a tax reform, initiated in 1950. This variable is frequently called the "break"-variable.

Subscripts 1 and 2 are used respectively for TEC and RBI samples. The same also for extended series of one or the other.

Standard errors are indicated within brackets below the coëfficients and constants.

a. First, we correlated the absolute amounts of savings with the absolute amounts of profits after tax separately for the two samples with only six observations each. The work is extremely simple and the correlation good (see Chart 3), but the number of observations are too few. The following results are obtained:

---

[1] *National Income and Outlay*, p. 255.

[2] The influence of difference in size is indirectly tested out by us in a series of industrywise correlations. There we see that with a few exceptions the larger units have a higher average saving propensity, but the marginal saving propensity appears to be unsystematic with respect to size.

For the period 1946—51 (TEC)

$$S_{c1} = \underset{(0.096)}{0.719}Y_{Bc1} - \underset{(2.8)}{8.5} \qquad (1)$$

For the period 1950—55 (RBI)

$$S_{c2} = \underset{(0.077)}{0.734}Y_{Bc2} - \underset{(3.5)}{15.4} \qquad (2)$$

The coëfficients and the intercepts are significant in both the equations. The coefficients of Y_{Bc} are not significantly different; nor are the intercepts, considering the fact that because of the differences in the scope of the two samples, the intercept for the second equation should be reduced to about —15.5 × 0.75 = — 11.6 in order to make it comparable with the corresponding value of the intercept in equation 1.

b. Second, we took up the extended series to cover the whole period 1946—55 eliminating overlapping. We did this in two alternative ways: The TEC series were extended forward with the help of item-wise ratios between the two samples for the year 1951. Again, the RBI series were extended backward with the help of the item-wise ratios between the two samples for the year 1950. This method was preferred to the method of using an average ratio of the two overlapping years because in this way any possible discrepancies in the results on account of the difference in methods would get the best chance to become noticeable.

(i) The TEC-extended series were tried out in 4 alternative ways (equations 3, 4, 5 and 7) in order to observe the condition under which a break in the linked series was not (and was) significant. This is why the break-variable L is brought in.

The net worth variable W is introduced primarily with the economic hypothesis that corporate saving is related to *profitability*[1], and for decision purposes profitability is ideally related to net worth. For technical reasons, however, we introduce it in equations with variables expressed as absolute magnitudes as well as in equations in which the variables are expressed as ratios of net worth. It will be interesting to note later that in the tested equations no significant break in the relation-

[1] f. Dobrovolsky, *op. cit.* p. 20. However, Lintner disagrees on empirical grounds.

ship occurs in the linked series whenever W is introduced — quite indifferent to whether it is introduced as an absolute value or as a denominator to other variables.

Equation 3 was obtained by correlating S_c to Y_{Bc}, L and W (all in absolute values):

$$S_{c1} = 0.783Y_{Bc1} - 1.67L_1 - 0.022W_1 - 3.0 \quad (3)$$
$$(0.050) \quad (0.98) \quad (0.010) \quad (2.6)$$

N.B. The coëfficient of L and the constant are not significant.

Since the intercept found is not significantly different from zero, this constant has been assumed equal to zero in the next equation. We find that the significance of the coëfficient of L diminishes further:

$$S_{c1} = 0.794Y_{Bc1} - 0.83L_1 - 0.032W_1 \quad (4)$$
$$(0.054) \quad (0.72) \quad (0.005)$$

Next, we expressed all the variables as percentages of net worth and obtained the following equation:

$$\frac{S_{c1}}{W_1} = 0.783\frac{Y_{Bc1}}{W_1} - 0.80\frac{L_1}{W_1} - 3.14 \quad (5)$$
$$(0.064) \quad (0.77) \quad (0.57)$$

There is still no rise in the significance of L, the break-variable.

Since we are approaching the hypothesis that the break-variable has no significant influence, we now try out another correlation with ratios as variables as in equation 5, but without the break-variable. The resultant equation is:

$$\frac{S_{c1}}{W_1} = 0.804\frac{Y_{Bc1}}{W_1} - 3.39 \quad (6)$$
$$(0.059) \quad (0.50)$$

Next, we shall see the result of retaining the break-variable in two equations with all variables in absolute values but without the net worth term:

$$S_{c1} = 0.712Y_{Bc1} - 3.47L_1 - 8.3 \quad (7)$$
$$(0.050) \quad (0.74) \quad (1.5)$$

We see here that the coëfficient of L becomes significant. Also note the similarity of the value of the intercept with that of equation 1).

(ii) We tried out the backward extended RBI series only for two cases with the variables tried on TEC extended series. (Two further cases are tried in Appendix XVII by introducing lagged dividend as one of the explanatory variables).

First we try out the case as shown in equation 7. The resulting equation is:

$$S_{c2} = \underset{(0.059)}{0.764Y_{Bc2}} - \underset{(1.19)}{4.21L_2} - \underset{(2.1)}{12.5} \tag{8}$$

Here also we notice that the coëfficient of L is significant and the value of the intercept is of an order similar to the corrected value of the intercept in equation 2.

We can now summarize our result with respect to the break-variable and conclude that by linking the figures of the two samples of T.E.C. and R.B.I., a significant break in the relationship (represented by the variable L) is shown only if net worth (W) is not included in the relationship (compare equation 7 and 8 on the one hand with 3, 4 and 5 on the other). This is true irrespective of whether the variables in the tested equations are expressed as ratios of net worth or as absolute values.

Finally, we correlated the same terms as in equation 6 and obtained the following result:

$$\frac{S_{c2}}{W_2} = \underset{(0.053)}{0.797} \frac{Y_{Bc2}}{W_2} - \underset{(0.42)}{3.24} \tag{9}$$

The correlation coëfficients are high in all the equations (see Appendix XVII).

(iii) We tried out two further correlations by introducing lagged dividends (see equation 10 and 11 in Appendix XVII) but the results indicate that the influence of dividend of the preceding year was not significant.

(iv) In order to judge the effect of dividend control operative during 1948 and 1949, we carried out a test with reference to the residuals (see Appendix XVIII). The signs are positive for one year and negative for the other. Moreover, larger residuals occur for other years in either direction. It can be concluded, therefore, that the effect of dividend control operative during 1948 and 1949 was random rather than systematic.

Further attempts to correlate without the years of dividend control were not made because for lagged dividend we would be left with a series of seven observations only (even on extended series). The enterprise was not considered worth undertaking.

5.2 Analytical: *Conclusions from an analysis of the statistical results*

We can summarize our conclusions from the above results as follows:

1. The *regression coëfficients* of current profit in the two partially overlapping periods (equations 1 and 2) are not significantly different. This supports the hypothesis that marginal propensity of corporations to save remained the same even in the two partially overlapping subperiods. Considering the corrections noted, the values of the intercepts for the two periods are also not very significantly different.

2. By extending the series forward (equations 3—7) or backward (equations 8 and 9) by linking the figures of both samples on the basis of the proportions of 1951 and 1950 respectively, *a significant break* in the relationship (represented by the level variable L) is shown *only if net worth (W) is not included* in the relationship (equations 7 and 8). *Conversely, when net worth is included (whether in absolute amount or as a divisor), there occurs no significant break in the relationship (equation 3, 4, and 5).* This conclusion is highly gratifying because it suggests that the method for linking the two series did not cause a flaw in the extended series, particularly for the equations which are finally accepted (which included the net worth variable). It gives confidence in the regression analysis based on the linked series for the accepted equation.

The choice of the explanatory variable W (net worth) was made on economic grounds, because net worth could affect corporate savings in two ways [1]: (1) When introduced as a divisor to all the variables, it relates the rate of saving to the rate of profit. This means that we relate saving to *profitability* rather than to profits — a procedure which has *a priori* attractions [2]. (2) When introduced as an absolute value, the variable W (net worth) brings in the factor of corporate surplus of the previous period (one of Tinbergen's explanatory variables) which has a negative influence on the current corporate savings. This second point is corroborated by the negative sign obtained for the regression coëfficients of W. We shall return to this aspect later under point no. 4 below.

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[1] A third factor is discussed under point no. 4, which is really an extension of our second point here.

[2] It is expected that this way of introducing the variables as *ratios* of net worth has the advantage of eliminating the influence of the size factor (for comparing with different samples or with aggregate data). It must be noted that while it does eliminate

3. The two methods of extending the series do not result in significantly different coëfficients (compare equation 8 with 7, and 9 with 6), considering the fact that the expected levels of the coëfficients for L and the intercept are about 20 to 30 percent higher for the backward extended series of the RBI sample than for the forward extended series of the TEC sample.

This means that it does not really matter whether the TEC series extended forward or the RBI series extended backward are used as a factual basis for testing the assumptions.

4. Equations 6 and 9 seem to be the most acceptable, mainly because they include net worth. Moreover by the inclusion of net worth (W) the break-variable can be dropped. However, it can be dropped equally well in equations 3 and 4 also. Hence, additional arguments are necessary for preferring equations 6 and 9 to equations 3 and 4. In fact this preference stems from a presumption in economic theory and from a statistical point of view. The variables are expressed as ratios of net worth. It is sometimes held that profit retention decisions depend largely on the rate of return on capital rather than on the absolute amount of profit[1] [2]. At any rate it enables us to relate saving to profitability. The statistical advantages of introducing W as a divisor are that only two degrees of freedom are taken up, and that possible heteroscedasticity of the

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the size factor to a large extent, it cannot eliminate the size factor completely. For the earlier part of this assertion cf. Dobrovolsky, *op. cit.*, pp. 20n and 40. For a modification of the assertion also cf. *ibid*, p. 40n.

[1] Dobrovolsky, *op. cit.*, p. 20. Lintner has argued against him that actual corporate decisions are based more on the absolute amounts of profit than on the rate of profit.

[2] Moreover, increasing net worth may change the marginal rate of saving, unless the specific influence of this variable on saving is eliminated; one way of doing so — analogous to the usual process of "deflating" variables — is to divide all variables by net worth. In fact, the results obtained by Dobrovolsky suggest that the marginal rate of saving is negatively correlated with size — which may be represented by net worth. Accordingly, a significantly negative value for the coëfficient of W has been found throughout.

The negative sign of net worth term is likely to be due to the accumulated reserves which are included in net worth.

residuals in the equations with absolute variables is counteracted.

The high value of the coëfficient for Y_{Bc} is in accordance with economic theory.

Directly we do *not* see any coëfficients for W *in these two equations* (6 and 9). But by multiplying both sides of the equations by W, we obtain a coëfficient for W (see Table in Appendix XVII). W has a significantly negative sign in all the equations where it (W) occurs (perhaps this reflects an indirect influence of accumulated reserves which are included in net worth), but everywhere its value is very small (about 3 percent). However, because W is several times the order of magnitudes of S and Y_{Bc}, its absolute influence may be appreciable.

We can make a digression on the general process of corporate saving.

Theoretically speaking, another factor may also exert a negative influence on corporate saving. If increase in paid-up capital takes place at a rate faster than that of increase in net profit, the company (or companies) can maintain its rate of dividend only by reducing its rate of retention.[1] In the present case, however, the rate of increase in net profit remained generally higher in both the samples (and sub-periods). Profits after tax increased in the TEC sample from 1946 to 1951 by some 50 per cent and in the RBI sample by some 54 percent, whereas for the TEC sample paid-up capital from new subscription increased just 25 percent — only when capitalized reserves were added did it increase 63 percent — and for the RBI sample paid-up capital including capitalized reserves increased merely 15 percent. The increase in reserves for the RBI sample (sub-period 1950—55) was 45 percent, and for the TEC sample 47 percent [2]. Thus in both the samples reserves were the chief negative influences. In the case of the TEC sample this influence is reinforced by a large increase in *capitalized reserves.* [3]

5. For measuring corporate marginal propensity to save both equations 6 and 9 would serve equally well [4], though statistically perhaps a

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[1] Rate of dividend usually refers to dividend as a ratio of paid-up capital, whereas rate of retention usually refers to retained profit as a ratio of net profits.

[2] Sources: 1. RBIB, September 1957, loc. cit., Tables 1 and 13.
2. TEC Report, Vol. I, Tables 12 and 18, and Statements I and XI (Appendix to Chapter VII).

[3] Note the distinction between reserves and capitalized reserves. Paid-up capital includes only the latter while net worth includes both.

[4] See Chart 4, page 206.

slight perference may be given to equation 9 because of the slightly higher correlation coëfficients.

The observed marginal rate of corporate saving during 1946—55 can thus be confidently placed at around 80 percent.

6. Lagged dividend did not have any significant influence on corporate saving. This is perhaps due to the extreme stability of dividend during the whole period. In this context, the operation of dividend control during 1948 and 1949 played a statistically insignificant role. More will be said in explanation of this stability in the last part of this section.

5.3 Comparison with some high-income countries

Let us now compare the average and marginal saving propensities of Indian corporations with those of American, British and Dutch corporations.

We bring together the available data in Table 53 for varying periods. For the sake of comparibility, we have calculated the postwar rates for America and the United Kingdom. Postwar figures are not available for the Netherlands from published sources. From private sources we have been able to gather rough but fairly reliable figures. The average rate of retention in the Netherlands in postwar years has been very high indeed: For manufacturing industries excluding oil it is something like 50 to 60 percent of net profit after tax, something like 60 to 70 percent for banks and insurance, and 65 to 75 percent for transport, storage and communications. It should be noted that this high rate of postwar corporate saving in the Netherlands accompanied an exceptionally high rate of profit. The operation of super-dividend tax and exemptions on investment also played their part.

Let us try to draw some broad conclusions from Table 53.

(Supplementary measures for testing the significance of the coefficients are not available for most of the equations. Therefore we can draw some of the following conclusions (Nos. 1, 3, 5) from Table 53 only on the drastic assumption that the coefficients are of the same order of significance in all the equations).

1. In the same country different marginal rates may occur at different periods (compare 2 and 3 with 4 and 5; and 7 with 8)[2].

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[1] Vide Table 44, Chapter 5.

[2] See supra, § 6.2, p. 182. That the average rate of saving would vary at different periods needs hardly to be mentioned.

Table 53. AVERAGE AND MARGINAL PROPENSITIES OF CORPORATE SAVING IN FOUR COUNTRIES

(Expressed as ratios of profits after tax)

Country	Period	Form of equation[1]	Marginal propensity percent	Average propensity percent	Source & Remarks
1. India	1946—55	$S^{c'} = \alpha Y'_{Bc} + \varkappa$	80	39	Eq. (9)
2. U.S.A.	1916—43 (excl. 1936&37)	$S^{c'} = \alpha Y'_{Bc} - \gamma D' + \lambda E' + \varkappa$	70	30 (1924—43 excl. '36&'37	Dobrovolsky-sample of *large corporations*[2]
3. "	1924—43 (excl. 1936&37)	$S^{c'} = \alpha Y'_{Bc} + \varkappa$	85	16	Dobrovolsky, for *All mfg. corporations*[3]
4. "	1946—55	$S^c = \alpha Y_{Bc} + \varkappa$	51	48	Calculated by us from Moody's data of unadjusted profits
5. "	1946—55	$\alpha Y_{Bc} + \varkappa$	69	52	Calculated by us from Dept. of Commerce data
6. "	1947—56	n.a.	n.a.	36	Terborgh, *op. cit.*, p. 19, Chart 9
7. U.K.	1924—35	$S^c = \alpha Y_{Bc} + \varkappa$	54	19	Clark's figure[4]
8. "	1948—54	$S^c = \alpha Y_{Bc} + \varkappa$	65	62	Calculated by us from Luboff's data[5]
9. Netherlands	1921—39	$S^c = \alpha Y_{Bc} + \varkappa$	65	29	Calculated by Bos[6]
10. "	Postwar period	n.a.	n.a.	60—70	

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[1] Dashed letters are used where the variables are expressed as ratios (of net worth).

[2] Dobrovolsky, *op. cit.*, p. 42. Average calculated from Supplementary Tables given by him in the Appendixes.

[3] *Ibid*, p. 22.

[4] Colin Clark, *National Income and Outlay* (Macmillan, London 1937), p. 255. Radice's coëfficient for a revised series is even lower, 43 percent. See E. A. Radice, *op. cit.*, p. 71.

[5] Andrei Luboff, "Some Aspects of Post-war Company Finance — An Analysis of Tabulations of Company Accounts Published in *The Economist*", *Accounting Research*, Vol. 7, No. 2, April 1956; N.I.E.S.R. Reprint Series No. 7; Table 14.

[6] H. C. Bos, "Nederlands Economische Ontwikkeling in 1953", *Economisch-Statistische Berichten*, December 23, 1953, p. 1021.

2. The *postwar average rate* of corporate saving in India is clearly lower than those in the United Kingdom and in the Netherlands. It may be recalled that profitability in India (at least for the samples covered) and in the United Kingdom were about the same during the postwar period studied, while that in the Netherlands was very much higher. High rates of dividend tax and exemption of investments were in operation in both the U.K. and the Netherlands.

The average rate of corporate saving in the U.S.A. during the postwar years is not very conclusive. Figures calculated from Moody's sample data and from the Department of Commerce data suggest a rather high rate of around 50 percent, while Terborgh's corrected figures show a rate of 36 percent. Terborgh also shows that during the prosperous years of 1923—29 the rate was just 30 percent [1]. Thus the Indian rate of 39 percent is not low, though it is lower than the rate of corporate saving in some of the high income countries during the postwar decade.

3. The *postwar marginal rate* of corporate saving is somewhat higher in India than that in the U.K. as well as in the U.S.A.

4. The postwar average rate of corporate saving is much higher than that of the pre-war in all the three foreign countries.

5. The postwar marginal propensity is perhaps slightly lower than the pre-war marginal propensity in the U.S.A. Perhaps the reverse is true for the U.K.

5.4 A theoretical appraisal of the high marginal propensity in India

In the light of what we said at the end of § 6.1.2 (pp. 178—79) with regard to a possibly higher marginal propensity for smaller U.S. corporations to save, conclusion number 3 above (higher marginal propensity of corporate saving in India) can now be fitted into a proper theoretical appraisal. It may be noted that the size of the average units covered by the Indian sample is much smaller than the average unit size of the U.S. or the U.K. sample, although the Indian sample represents the largest units in the country [2].

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[1] The nature of corrections introduced by Terborgh has been already mentioned in *supra*, § 5.7.4., p 163n.

[2] The average unit of RBI sample has Rs. 4 million for paid-up capital whereas the average of all U.S. corporations in 1952 had above Rs. 6 millions as common stock. The latter figure obtained by transforming dollars into rupees at the current rate from the figures given in the Stat.Abs. of U.S., 1956, p. 491.

We can appraise the theoretical position as follows:

1. The smaller firms may have a higher marginal propensity to save only when they are above a certain minimum size. A large number of small firms which are always "on their way out" in almost every country where a private business sector exists, is more likely to have a higher marginal propensity to consume (in the case of corporations the phrase can be easily translated as a higher marginal propensity to distribute profits) than to save. It is only above a minimum size that this problem of existence can be viewed as the problem of expansion (growth), and then of course the smaller units have a greater need to save out of every additional rupee (or dollar etc.), because raising capital from external sources is more difficult for them than for the larger units [1]. We must add that the smaller units, even with the above qualifications, have the need for marginally saving at a higher rate than larger units; it does not follow that they would necessarily and invariably do so.

2. A further hypothesis may follow from Table 53 relating the postwar figures (compare Nos. 4, 5, 8 & 10 on the one hand with No. 1 on the other) that the average saving rates of larger firms are higher than those of smaller firms. There is a strong presumption in favour of such a hypothesis, but the case of smaller U.S. corporations saving at a rate which is in some years much higher than that of the larger corporations remains a sobering reminder to be cautious [2] [3]. Over the long run perhaps the hypothesis holds true.

Combining the above two hypotheses, it looks logically plausible to assume that the smaller firms (above a minimum size) may maintain a higher marginal rate of saving and as they grow, their average rate of saving also gradually grows.

3. The fact that the average postwar saving rate in the U.K. was much higher while the state of profitability of business with reference

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[1] Of course for that matter, quite apart from the question of profitability, the stockholders' pressure for distribution may make retention also more difficult for the smaller units than for the larger ones.

[2] The following comparative rates of corporate saving (as percentages of net income) is given by Dobrovolsky in op. cit., Table 1, p. 15:

	1922	'23	'25	'29	'36	'37	'40	'41	'42	'43
Large manufacturing:	*26*	*46*	*49*	*48*	*26*	*30*	*33*	*42*	*43*	*42*
Small „	*-282*	*55*	*49*	*24*	*1*	*-17*	*50*	*64*	*57*	*62*

[3] Also see section 7 (the last section) of this chapter.

to profits after tax was about the same as in India, indicates that an international difference between the rates of saving is governed not so much by differences in profitability as by other considerations like stockholders' attitudes, government policies, and so on [1].

5.5 *Remarks on the nature of the period observed*

We have studied the marginal and average saving propensities and sought to make some generalizations on them. But is not the period abnormal, it may be asked, and are not generalizations based on observations of an abnormal period pointless and invalid? Our reply is that we do not approach the question in this cut-and-dry fashion. Normal and abnormal are relative concepts. We would not argue that there is no such thing as a normal period. There are certainly periods which are relatively more normal than others. The crucial question is: to what are we relating the period under our study? Are we relating it to a past that we consider normal or are we looking for a norm that is to be in the future? Our feeling is that most of the postwar economic phenomena are gradually settling down and are going to stay. We are definitely witnessing a structural change in the Indian economy [2]. Norms of the past, even if we had the means to study them, are helpful only in measuring that change and not in prognosticating that change [3].

The real question is whether the key economic factors have been stable, and in the light of the answer — perhaps even without it — whether our findings for the period are going to hold in the future.

Furthermore, abnormalcy of a period does not invalidate the reliability of the marginal propensity provided that it passes all the statistical tests. Now, in all our equations except 10 and 11, the correlation coëfficients are high [4] and the regression coëfficients are about 14 times the standard error. Statistically, therefore, there is no effect of the so-called abnormalcy on the relationship between corporate profits and corporate savings. Undoubtedly, this is because the impact of the "abnormal" years on the rate of saving does not appear to be abnormal. Take the years of peak and trough in Chart 1. Of the 4 peak years, 1946, 1948 and 1951 may be considered abnormal because they were respectively postwar- and- pre-partition, post-partition, and Korean war years. And yet what do we find? We find dividend steady and as a consequence corporate saving moving in sympathy with net profit. The only abnormal thing was the operation of the dividend control during 1948 and 1949, but its effect on saving is imperceptible. It is well known that for the already existing companies the dividend control did not materially affect their dividend level [1]. We have already shown (page 189) that the *effect* of the dividend control was random, and as such, quite normal.

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[1] For inter-industrial differences within the country, see *infra*, pp. 202—204.

[2] We cannot say it so categorically about the high-income countries, though there too certain structural changes are noticeable.

[3] Unless it is studied as a retarding influence.

[4] See Appendix XVII.

The second exogenous factor could perhaps be the corporation tax policy generally, and specifically that with respect to retained profits. Now, it is precisely during the abnormal years (say up to 1952) that fiscal policy was characterised by the *lack* of any policy, as a reading of Prof. Gopal's book will convincingly show [2]. In other words, tax policy was also random in its effect. It might be thought that the turn to an incentive taxation policy from 1950 on (including a rebate of $6^1/_4$ percent or so) might have exercised a positive influence on corporate saving. If effective, this measure should have manifested itself through the level variable L in the equations, especially on the basis of the TEC-extended series [3]. We have not specifically measured the influence, but from a glance at Table 52 we notice that the influence has worked more through the general business conditions than directly.

If the present policy continues, there is no reason why in the group of industries studied profit retention should not continue at the same level and even increase. The reason for this conclusion is that the postwar pattern of distribution of profits is remarkably different from the pre-war pattern [4]. We should point out that pre-war dividend distribution was excessive and fluctuating with profits,[1] perhaps keeping savings at a steady and low level. It does not seem likely that Indian companies will revert to their old (and immature) habits.

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[1] "... dividends were not to exceed 6% of the paid-up capital of the company or the *average dividend distributed by a particular concern during the two years ending March 1948, whichever happened to be higher*". (*Control — A Study* by the Federation of Indian Chambers of Commerce and Industry, New Delhi 1952. Our italics). The average dividends for those two years were generally very high. We can see in Table 52 that dividends did not register any fall in 1948.

[2] M. H. Gopal, *Indian Economy Since Independence: The Financial Policy of the Indian Union 1947—53;* Delhi School of Economics Monograph No. 4 (University Press, Delhi 1955), Chapters II and III, especially p. 20.

[3] However, it might be that the "flaw-effect" and the "law-effect" have different signs and hence cancel out.

[4] Both in India and abroad.

The marginal rate may continue at the present high level for quite some time.

6. IMPLICATIONS OF THE THEORY OF PRESSURES FOR THE INDIAN CASE

It remains for us to see how the theory of pressures mentioned by us at the beginning of the chapter fits in with our investigation of Indian data.

That the entrepreneurial pressure internally to finance expansions operated is obvious. An analysis of financing expansion during 1946—53 shows that expansion requirements were met from external sources (fresh capital excluding capitalised reserves) only to the extent of 38 percent [2], whereas 62 percent [2] of the expansion requirements were met out of internal saving [3].

On the other hand, the finding that lagged dividend exercised no significant influence on profit retention shoud not be misconstrued to suppose that the pressure to distribute dividend did not operate significantly from the side of the shareholders. In fact, from the figures of average rates of corporate saving it should be obvious that something like 60 percent of net profits were distributed by the (large) Indian corporations — which is higher than that in the three high-income countries.

Two distinct causes of dividend pressure can be identified. One is the pressure exercised by the poorer dividend receivers — who constitute at least 25 percent of the dividend earners [4]. Re-investment by them is insignifi-

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[1] See the writer's paper, *Levels and Fluctuations of Dividend in Four High-income and Low-income Countries.*

[2] Figures compiled in RBIB, August 1956, p. 787, from both TEC and RBI samples.

[3] Bank finance indeed has been freely drawn upon, but that mostly to finance inventory. — See *TEC Report*, Vol. I., § VII. 32, p. 115.

[4] Based on the following information on the distribution of dividends to shareholders in 1953—54 given in TEC Report Vol. II, pp. 153—54. Those belonging to category B and earning Rs. 10,000 and below are definitely poor as a dividend earning group:

[*Footnote continued on next page*]

cant. The other is the pressure exercised by companies holding inter-company stocks. Numerically, they constitute something below 2 percent of the dividend receivers, but their dividend claims probably constitute some 44 percent of total dividend [1]. The peculiarity of the managing agency system [2] plus the advantage of avoiding double tax [3], contribute to a very substantial pressure which does not seem to be motivated by consumption needs. It is almost certain that a very large part of the dividends received by this class of stockholders is reinvested somewhere or the other.

There is the third group of shareholders, other than the two groups mentioned above, constituting the bulk of dividend receivers — more than 70 percent — who belong to a high-income group. They must be the vocal ones in the Shareholders' Association and so on. Nothing is known about their spending, saving and investment habits. Some part of their dividend income may be expected to be re-invested.

[*Footnote from previous page*]

	Grade of total income	Number of assessees who had income from dividends
(A)	*Companies*	
	Below Rs. 25,000	554
	Over Rs. 25,000	1,061
	Unclassified	316
	Total for companies	1,931
(B)	*Other than companies*	
	Below Rs. 5,000	10,506
	Rs. 5,001— 10,000	19,011
	Rs. 10,001— 25,000	18,760
	Rs. 25,001— 40,000	5,801
	Rs. 40,001—100,000	5,189
	Rs. 100,001—200,000	1,119
	Rs. 200,001 and over	538
	Unclassified	52,326
	Total other than companies	113,250

[1] Judging by the refund granted on dividends. *Ibid, loc. cit.*

[2] Especially in Western India where a substantially large proportion of the shares is held by the managing agents. They may like to freely withdraw funds from among their managed companies and invest in the ones in which for one reason or another they feel particularly interested.

[3] Inter-company holdings of shares are not subjected to a double tax on dividends — once as profits of the company and again as income in the hands of dividend-receivers as is the case with individuals' holdings of shares.

7. THE INDUSTRYWISE POSITION: AN ADDENDUM

Even with the limited objective of making an international comparison of corporate saving propensities in terms of all-industry averages, our work had to be somewhat elaborate and took up much of our available space. We cannot here follow up fully with an inter-industry comparison within the country, similar to that which we made in our study of profitability. We therefore choose to provide here the material for such a comparison and indicate the approach in the barest outline — in the form of an addendum to the present chapter.

The broad relationship between profit, dividend and corporate saving has been graphically described in section 4 above. Without attempting such a description for each industry we are straightaway presenting the industrywise rates of corporate profit retention (retained profits as percentage of profit after tax) in Table 54. These are given for two overlapping sub-periods for the two samples without linking the series for the whole period, but merely averaging for the two sub-period averages. Even so, certain broad conclusions could perhaps be drawn with reference to the relationship between the profitability of a given industry and its saving propensity. Annual rates are provided not for detailed analysis, but for inspecting at a glance the effect of losses or negative savings (due to low profits) of certain years on the average of the sub-periods.

The marginal rates have been calculated only for seven industries selected in a way that allows us to compare the position of (1) competitive and non-competitive industries, (2) Indian-owned and foreign-owned industries, and (3) to give representation to the three groups of industries by ranking according to profitability. These marginal rates are of course calculated for the full period, i.e., for 1946—55, on the basis of the RBI series extended backward. The estimated equations are provided in Appendix XVII-B.

Using a very rough ranking for the whole period, the comparative positions of profitability, average saving propensity and marginal saving propensity are brought out in Table 55 on page 203.

Very broad conclusions can be drawn as follows:

I. Relation between profitability and saving propensity: We notice

Table 54. CORPORATE SAVING RATES IN INDIA, 1946—55 — *Percentages of Net Profit By Industry*

	1946	1947	1948	1949	1950	1951	TEC sample Average 1946—51	1950	1951	1952	1953	1954	1955	RBI sample Average 1951—55	1946—55 Simple average of the two sub-periods	1946—55 Marginal propensity (Linked series)
1. Cotton Textiles	53.2	48.6	70.1	13.6	32.9	51.3	50.8	34	51	—	—	—	43	23.5	*37.2*	*93.2*
2. Jute Textiles	39.2	23.1	27.1	. .	47.1	40.8	26.9	42	47	—	17	20	—	16.8	*21.9*	*68.5*
3. Other Textiles	61.9	65.6	50.0	20.0	37.5	14.3	42.6	56	24	—	—	—	69	2.0	*22.3*	
4. Iron and Steel	50.1	43.4	29.6	45.0	48.4	56.6	47.4	38	56	57	56	69	78	65.5	*56.5*	*100.0*
5. Engineering	36.5	52.4	46.3	45.4	37.4	43.5	43.8	n.d.a	n.d.a	n.d.a	n.d.a	n.d.a	n.d.a	53.0	*48.4*	
6. Cement	21.7	15.0	28.4	41.1	44.0	51.0	39.9	38	38	41	33	40	42	39.3	*39.6*	*44.2*
7. Sugar	35.8	52.3	63.9	5.4	32.9	43.7	44.0	34	53	35	41	36	39	41.3	*42.7*	*88.2*
8. Paper	47.0	26.2	44.4	52.5	58.8	61.7	52.7	55	59	61	60	45	49	54.8	*53.8*	
9. Vegetable Oil	56.0	48.0	50.0	44.4	20.0	. .	38.5	—	. .	. .	32	. .	42	n.s.	*37.8*	
10. Chemicals	38.1	58.1	53.8	44.8	27.7	35.4	35.1	36	20	—	—	—	46	1.2	*18.2*	*89.7*
11. Matches	63.8	46.3	64.4	50.0	42.2	37.6	51.2	40	38	49	17	17	14	28.3	*39.8*	
12. Coal	24.6	31.3	32.4	46.7	37.5	37.0	35.8	26	29	44	20	24	47	33.4	*34.6*	
13. Electricity	22.0	21.2	30.2	28.4	23.3	20.2	23.3	47	19	24	23	17	27	22.2	*22.8*	
14. Shipping	51.1	. .	. .	. .	62.5	73.1	29.5	63	74	61	11	34	31	53.4	*42.0*	
15. Tea Plantation	29.0	38.6	29.5	24.5	35.4	24.6	31.3	39	23	. .	59	49	11	37.3	*34.3*	*68.1*
16. Other Plantations	30.0	14.3	22.2	44.5	40.0	33.3	33.3	48	47	39	38	31	27	38.0	*35.7*	
17. Trading	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	39	40	16	1	—	. .	10.8	*10.8*	
18. Land and Estate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	38	13	11	13	14	. .	n.s.	*15.0*	
Total (including others)	44.2	38.0	51.2	23.0	41.1	47.2	40.1	38	48	21	32	36	46	38.7	*39.4*	*79.7*

. .) indicates losses by the source. '—' indicates zero or negative saving. n.a. means not available. n.d.a. means not directly available.
n.s. means not shown by the source. Sources: TEC Report Vol. I and RBIB September 1957, *loc. cit.*

Table 55. PROFITABILITY, AVERAGE AND MARGINAL SAVING PROPENSITIES ACCORDING TO THEIR RESPECTIVE RANKING

Profitability (with average rates on net worth[1] for the period 1946—55) % (1)		Average saving rate (saving as % of net profits) 1946—55 (2)	Marginal saving propensity (as % of net profits) 1946—55 (3)
I Above 10 percent		*I Above 39.4 percent*	*I Above 80 percent*
Iron and Steel	(14.7%)	Iron and Steel	Iron and Steel
Tea Plantation	(14.4%)	Paper	Cotton
Matches	(13.8%)	Engineering	Chemicals
Other Plantations	(12.0%)	Shipping	Sugar
Paper	(11.3%)	Matches.	
Cement	(10.0%)	Cement	
II Between 7 percent and 10 percent		*II Between 25 percent and 39.4 percent*	*II Between 50 percent and 80 percent*
Sugar	(9.7%)	Vegetable Oil	Jute
Cotton Textiles	(8.1%)	Cotton Textiles	Tea
Coal	(7.9%)	Other Plantations	
Electricity	(7.9%)	Coal	
Other Textiles	(7.0%)	Tea Plantations	
Jute	(7.0%)		
III Below 7 percent		*III Below 25 percent*	*III Below 50 percent*
Engineering	(5.0%)	Electricity	Cement
Trading	(4.9%)	Other textiles	
Vegetable Oil	(4.2%)	Jute	
Shipping	([illegible].8%)	Chemicals (very high excl. years of losses)	
Chemicals	(3.1%)	Land and Estate	
Land and Estate	(1.6%)	Trading	

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[1] Only very rough averages for the period 1946—55;— taken at the mean of the two sub-period averages. These whole-period average rates of profit on net worth are given here because they are not shown in the main Table (Table 40) from which they are worked out. Saving rates for the whole period are given in Table 54.

Sources: Col. (1) from Table 40; Col. (2) and (3) from Table 54.

only the roughest kind of correspondence between the ranking in profitability and that in the average saving propensity. Shipping and Engineering are the two outstanding exceptions. These two industries have had very low rates of profit (third group) but very high rates of saving (first group). If we exclude the years of losses, Chemicals also show a high propensity to save on its generally low rate of profit. Vegetable Oils also save moderately well out of low profits.

There are other exceptions too. Tea Plantations are highly profitable, but their saving propensity is just moderate. So also other Plantations. Earning rates of Jute Textiles are also moderate, but their saving propensity is rather low.

II. Profitability, average and marginal saving propensities: For gaining some idea about the correspondence of marginal saving propensity with profitability (and with average saving rate) we took Iron and Steel, Tea Plantations and Cement from the high-profit group; Sugar, Cotton Textiles and Jute Textiles from the second group; and Chemicals from the lowest group. We see that except for Iron and Steel, the marginal propensity hardly bears any correspondence with either the average profitability or with the average saving propensity for the decade considered. The high marginal saving propensity of Chemicals and low marginal propensity of Cement are particularly exceptional, though the average propensity of Chemicals is quite high if we leave out the years of losses.

III. Saving propensities by type of enterprise (Indian or foreign): We already found in Chapter 5 that differences in profitability arise more out of differences in types of industry than out of differences in types of enterprise — whether Indian or foreign. The rankings of (average) saving propensity and marginal saving propensity also show that foreign enterprises are not necessarily the best savers. Paper and Matches which are largely foreign-owned are high savers, but their profitability is also high. On the other hand, Engineering which is largely Indian, and Shipping which is also largely Indian are low earners but high savers. Jute which is almost completely foreign-owned is a moderate earner but low saver.

IV. Nature of industry (competitive or oligopolistic) and saving propensity: It is plausible to hold that the oligopolistic industries save more. Indeed some of them — Iron and Steel, Paper, Shipping, Matches, and Cement — do show a high *average* rate of saving. They are the high earners also. During the first half of the period, Cotton Textiles earned high profits and saved also at a high rate — a little above 50 percent. Normally competitive, this industry seems to have had some kind of special advantages at that time — scarcity conditions, etc. During the later half of the period competitive conditions seem to have prevailed. Thus the hypothesis may hold for average saving propensity. It does not hold for marginal propensity. Cotton Textiles, and Chemicals (mostly pharmaceuticals) are largely competitive, but they have a high marginal saving propensity whereas Cement which is mostly oligopolistic, shows a low marginal saving propensity.

V. Size and marginal propensity: A comparison (see pp. 178—9) of U.S. data suggests that it is possible for the smaller firms to have a higher marginal saving propensity than the larger ones[1]. This *possibility* is confirmed by the high marginal propensity of Chemicals which are mostly small units. On the other hand the larger firms can have equally high or higher marginal propensity. Cement indeed is a case of large units having small marginal propensity. But Iron and Steel which are very large units, have the highest marginal propensity to save.

Let the moderate weight of these findings serve to keep the generalizing propensity from flying[2].

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[1] A theoretical appraisal has been already given in § 6.5.4, pp. 195—96.

[2] Cf. Francis Bacon on what he considered the first source of errors (Idols of the Tribe), "The understanding must not be allowed to jump and fly from particulars to remote axioms and of almost the highest generality; . . . it must not be supplied with wings, but rather hung with weights to keep it from leaping and flying." — *Novum Organum* (The New Organon), i, 104.

Chart 3

Relationship between corporate saving (S_c) and net profit (Y_{Bc}) for all industries, India, TEC-sample 1946-1951 and RBI-sample 1950-1955

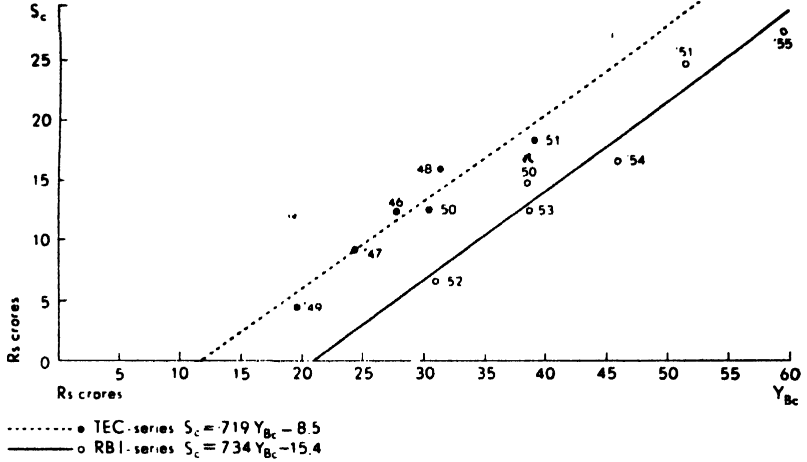


Chart 4

Relationship between ratios of corporate saving (S_c/W) and net profit (Y_{Bc}/W) to net worth, for all industries, India 1946-1955, by forward extended TEC and backward extended RBI series

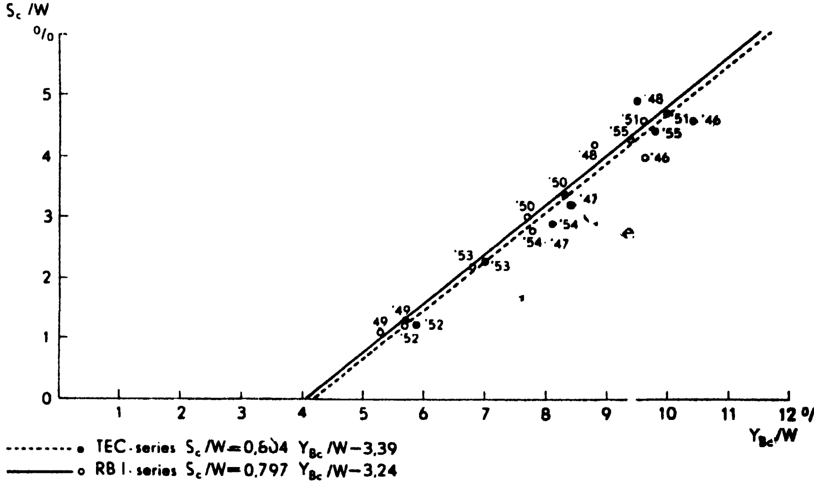
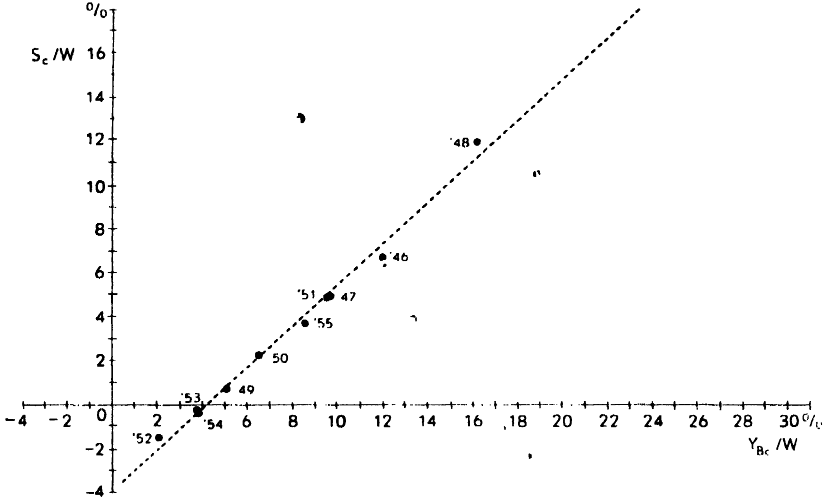


Chart 5

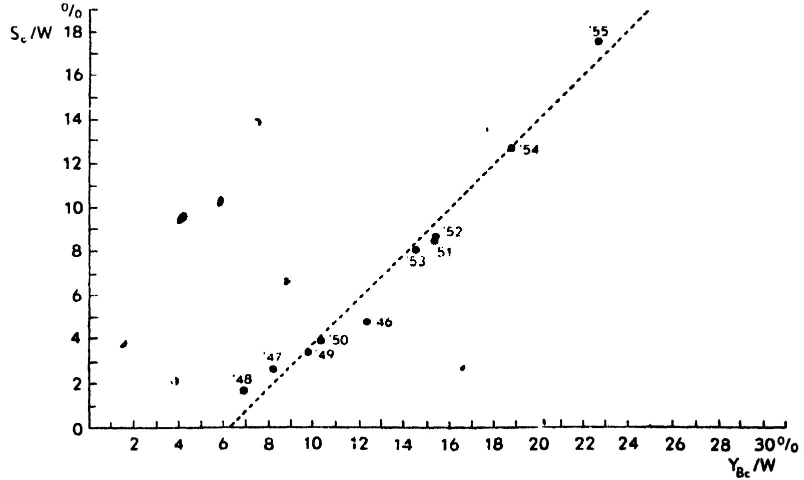
Relationship between ratios of corporate saving (S_c/W) and net profit (Y_{Bc}/W) to net worth, for selected industries, India 1946-1955, by backward extended RBI series

A. Cotton textiles



Regression line $S_c/W = 0.923\ Y_{Bc}/W - 3.93$

B. Iron and steel

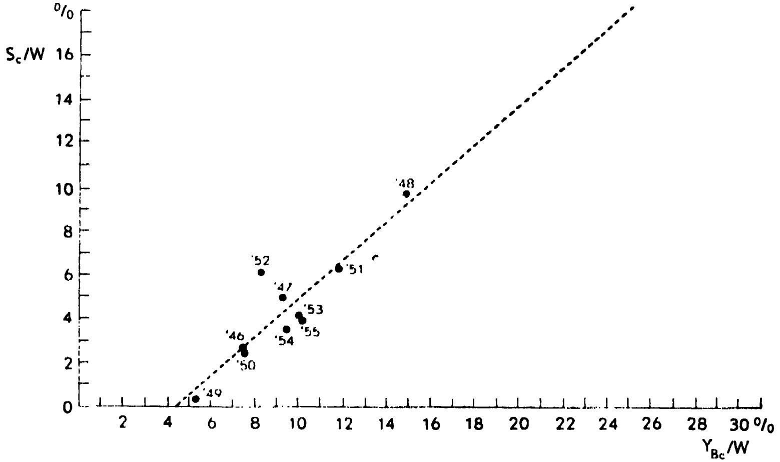


Regression line $S_c/W = 1{,}019\ Y_{Bc}/W - 6.43$

Chart 5 (continued)

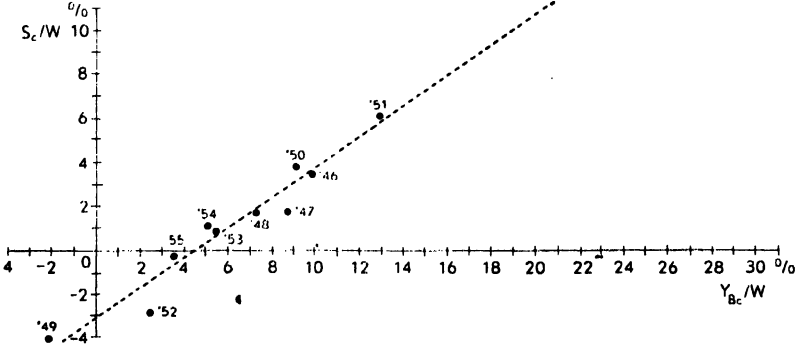
Relationship between ratios of corporate saving (S_c/W) and net profit (Y_{Bc}/W) to net worth, for selected industries of sample companies, India 1946-1955, by backward extended RBI series

C. Sugar



Regression line $S_c/W = 0{,}882\ Y_{Bc}/W - 3{,}92$

D. Jute textiles

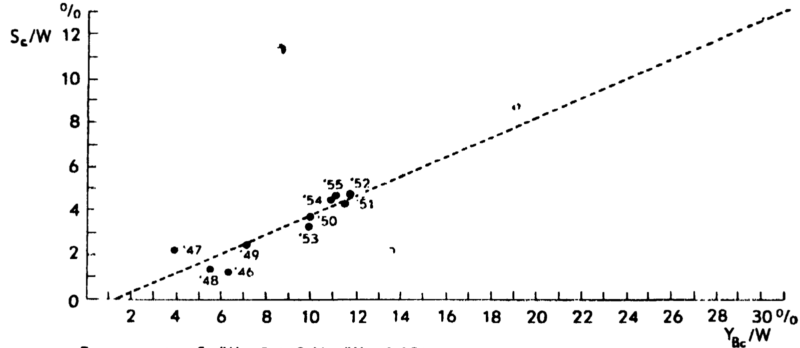


Regression line $S_c/W = 0{,}585\ Y_{Bc}/W - 3{,}13$

Chart 5 (continued)

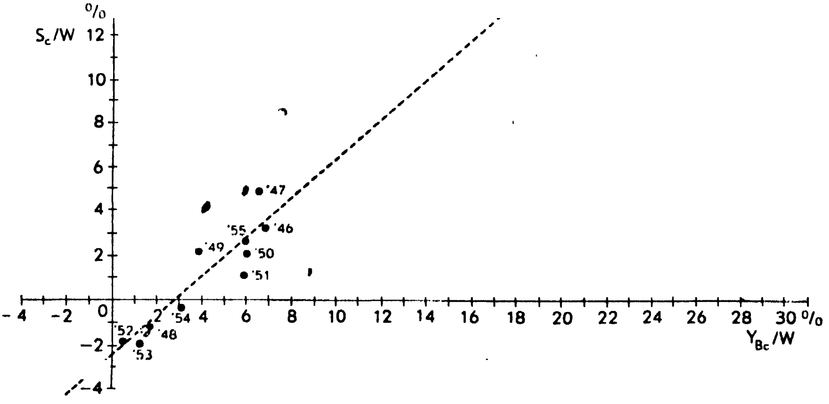
Relationship between ratios of corporate saving (S_c/W) and net profit (Y_{Bc}/W) to net worth, for selected industries of sample companies, India 1946-1955, by backward extended RBI series

E. Cement



Regression line $S_c/W = 0.442\ Y_{Bc}/W - 0.631$

F. Chemicals

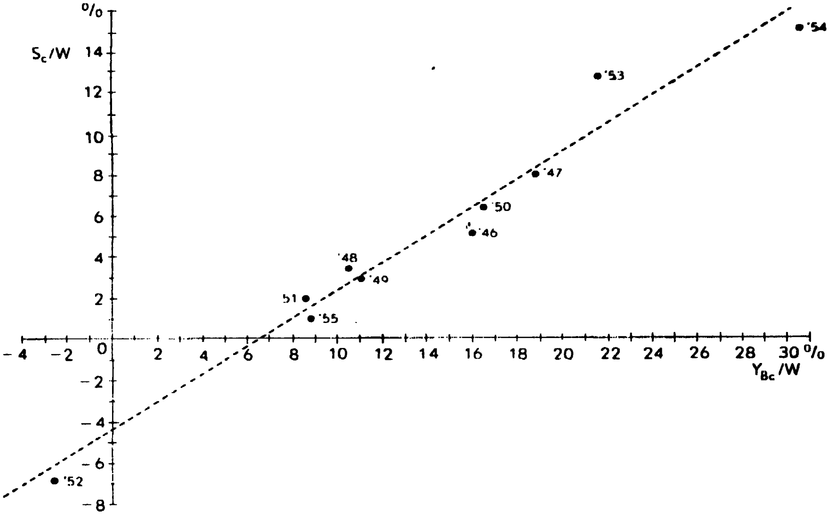


Regression line $S_c/W = 0.897\ Y_{Bc}/W - 2.59$

Chart 5 (continued)

Relationship between ratios of corporate saving (S_c/W) and net profit (Y_{Bc}/W) to net worth, for selected industries of sample companies, India 1946-1955, by backward extended RBI series

G. Tea (plantations)



Regression line $S_c/W = 0.681\ Y_{Bc}/W - 4.53$

CHAPTER SEVEN

CONCLUSIONS

1. CORPORATIONS, UNINCORPORATED ENTERPRISES AND NATIONAL SAVING

It is well known as a general proposition for industrialized countries that re-investment of profits plays a significant role in accelerating the process of economic growth. Re-investment of profits is practised not only by corporations but also by proprietary businessmen; but corporations play the more dominant role.

In low-income countries where saving habits outside the business community are negligible, re-investment of profits by proprietary businessmen plays the more dominant role, although the *rate* of re-investment by corporations is probably higher. This is because the size of the corporate sector is so small. In a sense, it is this relative smallness of the size of the corporate sector that is at once cause and effect of the backwardness of the economy; growth here is so painfully slow. It is quite understandable that even at its best way of functioning the corporate sector cannot influence the course of national saving significantly. On the other hand, the unincorporated enterprises sector can affect both the normal and the marginal rates of saving of the nation mainly because its size is sufficiently large, provided of course that its saving practice anywhere approaches that of the corporate enterprises. The qualifying clause is important, and a categorical assertion one way or the other can be made only when sufficiently intensive investigations of the right type have been conducted on a national scale. But even with our limited investigation certain broad conclusions suggest themselves.

If we compare Table 32 with Table 33 (pp. 120—21), we at once see the negligible share of corporate saving in the total national saving of India (only 4 to 6 percent), compared to the high share in most of the industrialized countries. On the other hand, we find that in India, unincorporated enterprises contribute a major share of saving (41 percent) while in the U.S.A. (Table 34, p. 122) the relative contribution of unincorporated enterprises excluding agriculture is not so important. The *rate* of saving of the corporate sector in India, when related to its own income, does not compare too unfavourably with that in high-income countries, though it is somewhat lower.

The average saving rate of corporations is about 40 percent, that of unincorporated enterprises about 27 percent (by assumption), — the rate of saving of the whole business sector little over 28 percent; that of the rest of the economy only 5.5 percent, distributed over government sector 14 percent and personal sector only 4.5 percent; while the rate of national saving was about 9 percent during 1948—53 (see summary of figures, *supra*, p. 124.)

The importance of the unincorporated business sector and the relative ineffectiveness of the corporate sector in influencing the national saving rate are patent. The influence of the government sector is much lower than that of the unincorporated business sector but higher than that of the corporate sector (its contribution to the total saving is thrice that of the corporate sector). As is to be expected, the rate of personal saving is the lowest, but it contributed nearly as much in quantity as the unincorporated business sector

2. ACCELERATION OF THE RATE OF NATIONAL SAVING AND THE SIGNIFICANCE OF THE BUSINESS SECTOR AND THE GOVERNMENT SECTOR

2.1 Need to increase the national rate of saving

Although the rate of saving of between 8 and 9 percent at our estimate for the period 1948—53, and about 10 percent by the end of 1960 [1] if we make a projection, is close to the long-run average saving rate of some of the mature capitalistic economies, a much higher rate of saving is needed to complete the take-off of the Indian economy. It seems reasonable to assume that the Indian rate of saving has to attain a 15—20 percent level to make her growth self-sustained [1]. The extent of acceleration of the rate of saving will decide how quickly the economy could be raised from its appallingly low standard.

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[1] Even on a very modest estimate the national marginal saving propensity is 12.8 percent. Projecting for end 1960 on this basis we get a national saving rate of 9.88 percent.

The SFYP projects for the year 1960—61 a saving rate of 10.7 percent (at 1952—53 prices) on the basis of a marginal saving rate of some 24 percent for the whole economy. Such a marginal saving rate for the whole of the economy is not altogether impossible; but then on this basis our projection for the national saving rate at the end of 1960 would be 12.5 percent if we work from a level of 9 percent; and 11.7 percent if we work from a level of 8 percent national saving! Our assumption about the national marginal saving rate seems to be more correct, unless the share of income of the business sector will have altered significantly by 1960.

Since by and large the low per capita income of the economy does not permit much more saving out of the existing income than its present level [2], it can be easily seen that saving out of additional income — the incremental or marginal rate of saving (ε) — plays the key role in raising the rate of saving.

2.2 Significance of sectoral marginal saving propensities and sectoral shares of the additional national income

Now, the marginal rate of saving is different in different sectors of the economy. Therefore, the marginal rate of saving for the whole economy is a weighted average of the sectoral marginal saving rates [3].

Two factors determine this weighted average marginal rate ($\bar{\varepsilon}$) — the sectoral marginal rates and the additional incomes going to the different sectors.

Sectoral marginal saving propensities. We found the value of marginal saving propensity for the corporate sector (ε_{Bc}) to be 0.8. Even with this high marginal saving propensity, the corporate sector will not lift up the aggregate marginal saving propensity ($\bar{\varepsilon}$) significantly if we are thinking in terms of doubling the national income.

We do not know the value of marginal saving propensity for the unincorporated sector of business (ε_{Bu}). In the light of our findings with regard to the indirect influence of the size factor on the marginal saving propensity of corporations, there can be no *a priori* objections against assuming that the value of ε_{Bc} holds for ε_{Bu} also. In that case, this

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[1] Cf. P. C. Mahalanobis, "National Income, Investment, and National Development" — Summary of Lecture delivered at the National Institute of Sciences of India on October 4, 1952 (Off-print received by courtesy of the Indian Statistical Institute, Calcutta).

[2] Some increase is of course possible through fiscal and monetary measures (leaving direct requisitioning out of consideration), but its scope is rather limited.

[3] $$\bar{\varepsilon} = \frac{\varepsilon_{Bc}\Delta Y_{Bc} + \varepsilon_{Bu}\Delta Y_{Bu} + \varepsilon_{R}\Delta Y_{R}}{\Delta Y}.$$

sector of the economy — the unincorporated enterprises — can play a highly significant role in raising the value of $\bar{\varepsilon}$.

The marginal saving rate of the government (ε_G), now that it has launched upon programmes of economic development, is likely to be high. With a deliberate policy and resoluteness of action, it can be pushed upto nearly hundred percent. At any rate, efforts should be directed to maintaining it at least at the same rate as that of the corporate sector[1]. Given this effort, the importance of the government sector comes second to that of the unincorporated business sector[2].

It is well known that the marginal saving propensity of the rest of the economy (ε_R) is little above the zero level.

Sectoral shares of increased income. Given the sectoral rates of marginal saving, it is the relative position of the sectoral shares of additional national income that is of decisive importance to the value of the marginal saving propensity of the nation ($\bar{\varepsilon}$). It is here that the comparative largeness of the size of the unincorporated enterprises sector assumes significance as against the corporate sector. The government sector also, provided its marginal saving rate is at least equal to that of the business sector, comes above the corporate sector, but it might very well come below the unincorporated business sector — the sectoral shares of income as percentages of national income being 14 for the unincorporated business sector, 8 for the government sector, 2 for the corporate sector. True, these are the average shares over the period 1948—55. The marginal shares of income of each of these sectors may increase, but let us assume for the time being that this is not likely to disturb the proportionality between these sectors significantly.

Of course, the advantage of large size of the sector of unincorporated enterprises may be reduced if its marginal saving rate is much lower than that of the corporate sector. Similarly with the government sector.

Since the influence of the sectoral ε (sometimes we shall call it m.s.p.)

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[1] A hundred percent marginal government saving can be maintained if all additional taxes and operating surplus of government enterprises (and other revenues) are diverted to developmental projects. However, additional administrative and other demands are sure to arise. Even an eighty percent level is therefore quite high.

[2] It might conceivably exceed the importance of the unincorporated enterprises since it is possible to raise the marginal share of income of the government above that of the unincorporated enterprises.

operates upon ε through the relative share of the given sector in the additional income of the nation, it is obvious that the corporate sector by itself will not increase the value of the national marginal saving propensity ($\bar{\varepsilon}$) despite its high m.s.p. On the other hand even with the slightest positive value of m.s.p. for the rest of the economy (ε_R) the value of $\bar{\varepsilon}$ rises significantly, just because the size of the rest of the economy is so very large. But a rise here is the most difficult to effect. The position of the unincorporated business sector is the most strategic in this respect. Its m.s.p. is likely to be high; and its share of the national income is sufficiently large to influence the national m.s.p. significantly. The importance of the government sector probably comes only next to it.

2.3 Sectoral shares of increased income and alternative combinations of sectoral values of m.s.p.

We roughly know the sectoral shares of national income in India. If the same relation holds for increased income also, we can calculate the values for $\bar{\varepsilon}$ (national m.s.p.) with different assumptions about the values of the sectoral m.s.p. The rate of saving with the doubling of national income is given in each case, since this is of the greatest practical consequence.

Case I

(Marginal and average shares of income are assumed equal).

Given: $Y_{Bc} = 2$, $Y_{Bu} = 14$; $Y_G = 8$; $Y_R = 76$; $Y = 100$. $S_0 = 10$.

ε_{Bc}	ε_{Bu}	ε_R ($\varepsilon_G = \varepsilon_R$ throughout)	$\bar{\varepsilon}$	Rate of saving if Y doubles
0.8	0.8	0	.128	.114
0.8	0.8	0.05	.170	.135
0.8	0.8	0.10	.212	.156
0.8	0.5	0	.086	.093
0.8	0.5	0.05	.128	.114
0.8	0.5	0.10	.170	.135

The assumption of $\varepsilon_R = 0$ is not very unrealistic, though a small positive value of, say, .05 to .10 might very well obtain. In either case the overall saving rate will increase if the value of $\bar{\varepsilon}$ is higher than the initial rate of saving. The value of $\bar{\varepsilon}$ will then be the upper limit, representing the asymptote to the hyperbolic curve of the rate of saving. In case $\bar{\varepsilon}$ is lower than the initial saving rate (as when $\varepsilon_{Bu} = .5$ and $\varepsilon_R = 0$), the value of ε will simply act as the lower limit.

In the most favourable of the examples shown above, the rate of saving to be attained with the doubling of national income is 15.6 percent, which just touches the range of the required rate of saving (of some 15—20 percent). This result is obtained only by assuming the high m.s.p. of 80 percent for the unincorporated sector together with 10 percent for the rest of the economy.

In all the other instances the saving rate remains below the required level. And with the combination of $\varepsilon_{Bu} = .5$ and $\varepsilon_R = 0$, the national m.s.p. falls below the initial saving rate, and as a consequence, the rate of aggregate saving also falls below the initial saving rate when the national income is doubled.

We shall soon see that with a redistribution of income which is in favour of the business sector (mainly the unincorporated enterprises) — and with special assumptions, also in favour of the government sector — the prospect of increasing the saving rate is transformed.

We are anticipating the question of a change in the sectoral income distribution. Let us first consider the case of higher values of ε_G — the marginal rate of saving by government than that we assumed in Case I.

We see that the situation improves in Case II. We also notice that to attain a saving rate of above 16 percent with the doubling of national income, the value of $\bar{\varepsilon}$ has to be .23 or higher. This value could be attained only if either the values of ε_{Bu} and ε_R are taken respectively at .8 and .05 or .5 and .10. If $\varepsilon_R = 0$, then the level of 23 percent national m.s.p. cannot be reached even if the values of all the other sectoral m.s.p. are taken at .8.

Case II

Given: same as in Case I but considering the value of $\varepsilon_G = \varepsilon_{Bc}$
$Y_{Bc} = 2$, $Y_{Bu} = 14$; $Y_G = 8$; $Y_R = 76$; $Y = 100$. $S_0 = 10$.

ε_{Bc}	ε_{Bu}	ε_G	ε_R	$\bar{\varepsilon}$	Rate of saving if Y doubles
0.8	0.8	0.8	0	.192	.146
0.8	0.8	0.8	0.05	.230	.165
0.8	0.8	0.8	0.10	.268	.184
0.8	0.5	0.8	0	.150	.125
0.8	0.5	0.8	0.05	.188	.144
0.8	0.5	0.8	0.10	.226	.163

2.4 *Effect of changes in the relative shares of sectoral income*

We shall now consider three more cases which show the results of what are in effect different sectoral re-distributions of income.

Case III illustrates a situation where the share of business income becomes 24 percent of the additional national income instead of 16 percent, while the incremental share of government income remains constant at 8 percent. In Case IV, the incremental share of business income is kept constant while that of government income is raised. Two sub-cases are considered. In Case V the incremental shares of income of the business sector and the government both increase — in sub-case A, proportionally; while in sub-case B, a higher increase in the government sector is allowed [1].

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[1] The maximum allowed for the government sector is 20 percent of the additional national income — Cases IV—B & V—B.

Case III

Given: $\Delta Y = 100$; $\Delta Y_{Bc} = 3$, $\Delta Y_{Bu} = 21$; $\Delta Y_G = 8$; $\Delta Y_R = 68$.
$Y_0 = 100$; $S_0 = 10$.

ε_{Bc}	ε_{Bu}	ε_G	ε_R	$\bar{\varepsilon}$	$\frac{S}{Y}$ if Y doubles
0.8	0.8	0.05	0.05	.230	.165
0.8	0.8	0.10	0.10	.268	.184
0.8	0.8	0.8	0	.256	.178
0.8	0.8	0.8	0.05	.290	.195
0.8	0.8	0.8	0.10	.324	.212
0.8	0.5	0.8	0	.193	.147
0.8	0.5	0.8	0.05	.227	.163
0.8	0.5	0.8	0.10	.261	.180

We see that in each example, except for the one with an m.s.p. of 50 percent for unincorporated enterprises *together with* a zero m.s.p. for the rest of the economy, a doubling of national income raises the rate of saving above 16 percent. It is interesting that this is true even if the m.s.p of government sector is no more than just 5 percent. With the m.s.p. of government sector equal to m.s.p. of corporate sector, the value of $\bar{\varepsilon}$ is high indeed, and therefore the rate of saving reached with the doubling of national income is around 20 percent and higher.

For the sake of convenience we now consider fewer and more probable ranges of value for epsilons.

Case IV-A

Given: $\Delta Y = 100$; $\Delta Y_{Bc} = 2$, $\Delta Y_{Bu} = 14$; $\Delta Y_G = 12$; $Y_R = 72$.
$Y_0 = 100$; $S_0 = 10$.

ε_{Bc}	ε_{Bu}	ε_G	ε_R	$\bar{\varepsilon}$	$\frac{S}{Y}$ if Y doubles
0.8	0.8	0.8	0	.224	.162
0.8	0.8	0.8	0.05	.260	.180
0.8	0.5	0.8	0	.182	.141
0.8	0.5	0.8	0.05	.218	.159

Case IV-B

Given: As above, but $\Delta Y_G = 20$ and $\Delta Y_R = 64$.

0.8	0.8	0.8	0	.288	.194
0.8	0.8	0.8	0.05	.320	.210
0.8	0.5	0.8	0	.246	.173
0.8	0.5	0.8	0.05	.278	.189

We see in Case IV-A that with identical assumptions about the sectoral values of ε, the value of $\bar{\varepsilon}$ (and the values of $\frac{S}{Y}$ with a doubled national income) is lower in each instance than that in Case III. But in Case IV-B, the value of $\bar{\varepsilon}$ is in each instance higher than its counterpart in Case III.

Case V-A

Given: $\Delta Y = 100$; $\Delta Y_{Bc} = 3$, $\Delta Y_{Bu} = 21$; $\Delta Y_G = 12$; $\Delta Y_R = 64$. $Y_0 = 100$; $S_0 = 10$.

ε_{Bc}	ε_{Bu}	ε_G	ε_R	$\bar{\varepsilon}$	$\frac{S}{Y}$ if Y doubles
0.8	0.8	0.8	0	.288	.194
0.8	0.8	0.8	0.05	.320	.210
0.8	0.5	0.8	0	.225	.163
0.8	0.5	0.8	0.05	.275	.188

Case V-B

Given: as above, but $\triangle Y_G = 20$ and $\triangle Y_R = 56$.

ε_{Bc}	ε_{Bu}	ε_G	ε_R	$\bar{\varepsilon}$	$^S/_Y$ if Y doubles
0.8	0.8	0.8	0	.352	.226
0.8	0.8	0.8	0.05	.380	.240
0.8	0.5	0.8	0	.289	.195
0.8	0.5	0.8	0.05	.317	.209

V-A illustrates a proportional shift of income in favour of Y_B and Y_G. An interesting comparison arises with case IV-B. In both, $\triangle Y_R$ is the same and therefore, so long as each of ε_{Bc}, ε_{Bu}, and ε_G has the same value (0.8), the value of $\bar{\varepsilon}$ is also the same. If, however, the value of ε_{Bu} is assumed lower (say, 0.5), the resultant value of $\bar{\varepsilon}$ in V-A is lower than that in IV-B because $\triangle Y_{Pu}$ is assumed to be more than $\triangle Y_G$ (whereas in IV-B it is less than $\triangle Y_G$).

In Case V-B, each of the instances naturally shows the highest value for the corresponding instance in all the other cases.

2.5 Choice between business sector and general government sector

If we were to go by the mechanical result alone, the question of a choice would not pose itself. Case V-B shows the highest national m.s.p. and therefore it would be the most preferable of the cases cited [1].

The problem of choice arises because the increases in the marginal incomes of the business sector and the government sector are not independent of each other. The assumed shares of 24 and 20 percent of additional national income for the business and the government sectors respectively may not lie beyond the pale of possibility, but it is extremely difficult to realise such a high marginal share of income for the government sector while allowing as high as 24 percent of the additional national income to the business sector. In any case, the competitive nature of the two sectors with respect to their marginal share of national income should be understood. And this can be best exemplified if we take Case IV-B and Case V-A as the two types of alternatives, because in the former a high value of $\triangle Y_G$ is assumed together with a low value of $\triangle Y_B$, while in the latter (Case V-A) moderate values are assumed for both $\triangle Y_G$ and $\triangle Y_B$.

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[1] As high or higher national marginal saving propensities could be reached by allowing higher marginal shares of national income for the business sector, but since a development in that direction is the least likely in India, no such examples have been shown.

Now, *if* the m.s.p. of the business sector including the unincorporated enterprises, as well as of the general government sector is the same (say, 0.8), then purely for the mechanics of increasing the rate of national saving, it is a matter of indifference whether the marginal share of income of general government alone rises or there is a proportional rise in the shares of business income and government income. But if the m.s.p. of the unincorporated enterprises is assumed to be lower than that of the general government sector, then a proportional rise in the shares of business income and general government income will give a saving rate, in the particular instances cited, which is lower than the one in the case where the relative share of the government share alone rises sharply, as in Case IV-B [1].

This may lend support to the choice of increasing the share of income of the general government sector sufficiently, even keeping that of the business sector constant. But we must enter a caveat. The choice will be correct on an important *supposition*. We supposed that government can invest in projects of economic development nearly all of its additional income. But unlike the marginal saving propensities of the private sector, the marginal saving of the government sector is the result of a direct decision of one single institution — i.e. the government itself. It is not the result of the free play of economic forces. Now, whether the additional income in the hands of the government will continue to be invested year after year will depend upon the single-mindedness of the government and the continuity of its decisions. If there is the slightest doubt that the government might find it difficult to resist demands for higher administrative expenditure, social amenities and conspicuous spending, a compromise case like the one given in V-A is much safer. It may be less risky to distribute the eggs that may hatch into productive chickens in separate baskets.

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[1] The reason is that in Case V-A the relative share of income of the unincorporated business sector is much higher than that of the general government sector, and vice versa in Case IV-B.

A further rationale to this choice is to be provided in the next section also.

The question whether the government should enlarge the sphere of industrial investment and internally finance the expansion of this sphere to the maximum extent is quite a different matter from expansion out of general revenues. It will be treated in Section 4.

2.6 Choice between corporate sector and unincorporated business sector

From the point of view of increasing the saving rate of the country, the unincorporated enterprises sector is much more important than the corporate sector mainly because of the relative largeness of its size [1].

There can be no question of an exclusive choice between the two sub-sectors of the business sector. But where it is a question of placing the accent on one or the other in the scheme of Indian development planning, the unincorporated enterprises deserve a greater share of attention because of its size, spread and (almost certainly) high marginal saving propensity.

It must be recalled, however, that the largest part of the unincorporated sector — the category of employers and independents belonging to "other commerce" — are mostly traders. An expansion of their activity should be linked up with the attention already being paid by the Indian government to the category of "small enterprises". The aggregate income of these small enterprises comes very close to the aggregate income of the employers and independents belonging to "other commerce". But the per capita income of the small enterprises is too low to be considered relevant to saving. We therefore excluded this group from our definition of unincorporated enterprises. On the other hand, the category of the "small enterprises" may very well prove relevant to the question of marginal saving. The rate of its marginal saving is likely to be low but well above the national saving rate; and with appropriate incentive measures it can be pushed up. Thus, this sector may also be expected to raise the value of $\bar{\varepsilon}$ and help to raise the national saving rate to some extent. The Second Five Year Plan includes the development of these small enterprises. Its main objective is to secure more employment. The whole of our unincorporated enterprises sector is labour-intensive like the "small enterprises". With a thorough investigation of the financial conditions and practices of the proprietors belonging to the unincorporated enterprises sector as well as to the "small enterprises", a more integrated rationale than a mere employment objective could be provided to action on this front. Besides the saving and employment potentials, the unincorporated enterprises together with the "small enterprises" are fairly diversified and enjoy a widespread distribution throughout the country. Thus an expansion and a regeneration of this sector might very well provide the leverage by which the standards of the entire economy could be transformed. (To be sure, agriculture has to be transformed, but judging by its low saving propensities, it does not provide the *leverage.*)

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[1] This is pretty obvious. The influence on the national saving rate has been stressed in section 1 above. The preference with respect to *increasing* the rate of saving has more arguments behind it than is apparent. An important argument is the capital investment needed.

Furthermore, it might be argued that once it is established that the unincorporated enterprises possess a high marginal saving propensity, even a deliberate policy of redistributing the national income in favour of the unincorporated enterprises sector by encouraging full scope for its expansion will help to raise the national saving rate quickly. Moreover, it is not likely to increase the inequalities of income distribution — it is more likely to level up at the intermediate range of income, which may not offend against the Indian idea of achieving a socialistic pattern of society in its transitional phase.

3. THE BROADER SETTING OF THE CORPORATE SECTOR — A MODIFICATION

In Sections 1 and 2 above we have been dealing with the relative importance of the corporate sector, unincorporated enterprises sector, the general government sector and the rest of the economy with respect to national saving. The conclusion emerged that *in this respect* the corporate sector is relatively unimportant inspite of its high rate of retention and very high rate of marginal saving. It must not be inferred, however, that on wider considerations also the corporate sector is unimportant.

If it is granted that industrialization of the low-income countries — particularly of a large country like India with her varied natural resources — requires literally the creation of a large industrial base of the modern type [1] [2], then the importance of the corporate sector becomes evident at once. Within the modern sector, corporate business occupies a substantial place and plays an important rôle.

We found that in terms of net productive capital the corporate sector constituted nearly 50 percent of the modern sector. A sharp change in the relative position took place during 1950—55 mainly because of the increased governmental investment activities and the state of suspended animation of the modern private sector. By 1955 the share of the corporate sector came down to some 35 percent of the modern sector. Over the years 1956—60, a period of still more accelerated development, the relative position of the corporate sector remains substantially the same. This means that the corporate sector has found a fuller play.

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[1] The third essential component in the structure of the "take-off" in Prof. Rostow's conception. The other two are the supply of loanable funds and entrepreneurship. The industrial sector is called the leading sector comprising the primary, the supplementary and the derived growth sectors. See W. W. Rostow, "The Take-off into Self-sustained Growth," *Economic Journal*, March 1956, pp. 38—44.

[2] For a large country like India, the case for having a large (and balanced) industrial base needs hardly any arguments.

The transition in our arguments from the objective of raising the per capita income to the question of creating industrial enterprises which we would like to call industrialization leaves a gap which we may as well fill up here.

The term 'industrialization' has been defined variously and much refinement has been introduced. Quite apart from the sociological interpretation of a cognizable change in the total social milieu, economists also tend to emphasize the "complex of interrelated processes governing the level and movement of output" (J. J. Spengler, "Economic Factors in the Development of Densely Populated Areas", *Proceedings of the American Philosophical Society* — Held at Philadelphia for Promoting Useful Knowledge, Vol. 95, No. 1, February 13, 1951, p. 20n). The tendency is to shift the emphasis from creating modern industries to just increasing the per capita income which alone is considered sufficient to define 'industrialization' and is sought to be cultivated among the new generation of economists.

However, for the low-income countries, the simple relation between raising the level of income and the creation of modern industry has to be grasped without denying the existence of complexities.

The crude meaning of industrialization is the building of a sustained body of industry — industry meaning particularly the large-scale factory industry of the modern type. The level of output accompanies — even follows. A clear grasp of this rather crude fact is necessary. After all, no mysticism attaches to the concept of industrialization. It augurs well that the planners of India have not missed this fact of fundamental importance to their action, however rough and crude it might be.

India has not completed her take-off; but her attempts are fast leading towards it. Paraphrasing Rostow we might say that the corporate sector has provided a great deal of the pre-take-off base. The primary growth sectors are now being provided principally by the state, but the corporate sector has also contributed a substantial part.

With its narrow base it has alone provided the supplementary and the derived growth sectors so far.

It has provided the nucleus of a school of entrepreneurship, however small.

And most of the expansion of this sector finances itself. This fact is particularly important in the context of the rapid development that is being attempted.

A policy of discriminate encouragement and containment may have to be pursued by a government which tries to steer towards the country's goal of socialism. In this respect, a knowledge of the industrywise marginal saving propensities such as we have found only for an illustrative group of industries might provide one of the important criteria to be taken into account.

4. PRIVATE VERSUS PUBLIC SECTOR: A PLEA FOR A "PERFORMANCE TEST"

In the context of the development of low-income countries the question of private and public fields of industrial enterprise [1] is hardly debated as "either . . . or" alternatives. What is argued more frequently is the question of a proper delimitation of the sphere of the public sector. However, any economic argument on the question seems to cut both ways.

If we say that the state should limit itself to those fields of investment which are in the nature of social overheads, the *economic* argument would be valid only when it can be shown that private enterprise is more efficient in effecting quick economic *growth* [1]. Let us take the most fundamental growth factor, saving. We showed in Table 23 that in India the two sectors were about equal in 1950, but by 1955 the public sector became nearly double the size of the private sector. And yet, what saving performance do the two sectors show?

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[1] Other criteria of judgment are possible, e.g., productivity, economic use of resources, etc., on all of which it is possible to make the public sector as efficient as the private sector. We are taking up the argument of saving because at first sight it appears to be highly unfavourable to the public sector.

Company savings during 1948—55 amounted to Rs 307 crores whereas the operating surplus of government enterprises amounted to Rs 253 crores, which can be assumed to have been re-invested (the amount is of course consolidated in the general bugdet, but budgetary saving has been much larger, and the amount invested larger still). The comparison does not end here. If we consider savings out of dividends, savings out of company profits must have been at least 420 crores [1].

Thus it seems that the expansion of the private sector is largely self-generated whereas the expansion of the public sector is based on the sacrifices of the community. But it would be hasty to draw such a conclusion. The benefits of investments in the public sector are mostly in the nature of social overheads and these have to be appraised by some other measures, such as, for example, the national income test [2].

It must be noted that it is precisely on the question of the ability of the public sector to sustain a self-generated expansion that some economists in India have urged the government to enter the field of consumers' goods industries. The argument is that the benefits of the public enterprises are reaped by the private industries. Public enterprises themselves should reap these benefits and increase their profits and reinvestment [3].

We think that this is a question which is always decided on extra-economic considerations. The economist can, however, prescribe economic norms by which the performance of the public sector can be judged in order that higher levels of performance are achieved.

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[1] Dividend = 307 × $^{60}/_{40}$ = 460.5. Assuming at least 25% of dividend saved, we have Rs. 115. Thus 307 + 115 = 422.

[2] This is a method at a preliminary stage of development at the Netherlands Economic Institute (Division of Balanced International Growth) under the direct inspiration of Prof. J. Tinbergen. See the Institute's publications (1) *Subsidies and the substitution of labour for capital* (mimeographed, January 1956), and (2) *The appraisal of investment projects* (mimeographed, March 1958). The concept is introduced by Tinbergen in his report to the International Bank, *The Design of Development* (John Hopkin's Press, Baltimore 1958), Annex V—3.

[3] See Prof. K. N. Raj, "Model-making and the Second Plan", *Economic Weekly* (Bombay), January 26, 1955, p. 107.

A continuous study of the type indicated in paragraphs (4) and (5) in section 6 below could provide a basis for comparing the performance of the two sectors in similar types of enterprises. Where the same type of enterprise does not exist in the private sector within the country, comparison can be made with the performance of firms of foreign countries.

Such a continuous comparison would offer a code of constructive criticism by which any tendency to neglect the question of cost reduction (maximum economy in production) could be counteracted. In private industry, competition provides the most effective criticism. It is the spur under which constant cost reduction is achieved by private industry which has not yet become monopolistic. But cost reduction is not impossible to achieve under different systems of criticism. One such has been suggested above. In the Indian case it might perhaps be wise to introduce an element of competition between the public sector and the private sector. The challenge of exchange stringency, at any rate, induces the response of competition for the export market even on the part of state enterprises. It is a new opportunity. Whether the Government of India will only encourage the private sector to enter the foreign market, or enter the field themselves where expansion seems to be the most promising remains to be seen.

One thing is certain. Maximisation of profit (operating surplus) with the principle of systematic cost reduction, and internal financing of expansion to the maximum are desiderata for state enterprises also. By introducing "also" we are anticipating the subject-matter of the next paragraph on internal financing versus external financing. We shall there see that there are conceivable situations in which too much internal financing by companies in the private sector may be uncongenial to the growth of an economy. But this is mostly not true for the newly industrializing countries, in either the private or the public sector.

5. ON CORPORATE PROFIT RETENTION: INTERNAL VERSUS EXTERNAL FINANCING

The question of corporate profit retention has two policy aspects. One is the corporations' own policy and the other is the government's policy towards corporate profit retention.

We have seen that corporations have maintained a fairly high retention policy during the postwar period studied. The average rate of 40 percent of profit after tax might not look high enough, but when we consider the rate of internal financing of expansion we find that an average of 62 percent of capital expansion was financed out of internal savings (retained profits). And this is quite high.

Let us pass on to the government's attitude and policy. The Government of India had a variable policy up to 1950—51. After the partition of the country into India and Pakistan, government taxation policy gradually veered round to an incentive taxation from a heavily disincentive taxation outlined by the pre-partition Finance Minister, Mr. Liaqat-Ali Khan [1]. General uncertainties prevailed in the business quarters for quite some time when there was talk of indiscriminate nationalisation. The government tried to bring back confidence by a series of measures. An Industrial Policy was announced in 1948 to remove uncertainties about the future. Further attempts to revive confidence among business circles were made by seeking to lighten the tax burden on private industry [2]. Liberal depreciation provisions and relief in supertax and corporation tax were granted. From 1951—52 onward a more stable and purposive taxation policy was adopted keeping a long-term developmental policy in view. A slight increase in corporation tax was introduced, but rebates on retained profits and liberal provision for depreciation were granted. Vague platitudes of earlier days were replaced by a refreshing air of practical decisions.

At the same time the First Five Year Plan castigated company saving in the form of retained profits as a thing which increases monopoly control [3]. The implication is that profit retention, and therefore internal financing, is a bad thing.

Now this is very typical of a confused, a kind of echo-thinking. Where oligopolistic control is strongly entrenched, external financing by resort to the capital market does not make any very great difference in the power of oligopolistic control over industry, because in a country like India the capital market itself is highly circumscribed by the limited size of the investing public. It perhaps does not make a great difference to the chances of starting new business by other entrepreneurs by raising funds from the capital market even if the big firms distributed more out of their profits because of the peculiarity of the capital market in India. In a country like U.K. or the U.SA. it might make a difference because the class of investing public is large and relatively diffused. When profits are not distributed to shareholders *who are always willing to re-invest elsewhere*, it means that investment in *new* channels is thwarted, thus introducing an element of rigidity in the industrial structure of the economy, making new entry in ever newer fields of production (or introduction of new technique) difficult. This has been the typical situation in postwar Britain. It is only in such a context that we see the baneful effects of excessive internal financing. But the social background is important. In U.K., a large distribution may mean a wide choice of re-investment because of the existence of a large investing public. Think of the effect of a very large distribution in India. Half of the distributed profits will go back to company holdings (largely controlled by managing agents). One fourth would probably go to a class of share holders whose propensity to consume is acute, and another fourth go to a class of shareholders who may have the habit of investing. The oligopolistic control is not affected. To gain a doubtful freedom of investment for receivers of one-fourth of the dividends, we lose one-fourth of our savings to consumption [1]. Let us recall that the average rate of corporate saving is high, but by no standards excessive.

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[1] M. H. Gopal, *op. cit.*, Chapters II and III.

[2] *Loc. cit.*

[3] FFYP, p. 41.

Issues should be judged in this rational way. Instead, we have only echoed things we faintly heard said in the spate of anti-trust movement, at the Temporary National Economic Committee in the United States. Dr. Altman (Temporary National Economic Committee Monograph no. 37) [2] showed that during the thirties many large corporations undertook large-scale expansions which were met completely out of internal funds. Has anybody stopped to assess its beneficial anti-cyclical effect?

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[1] The argument used by us applies to short- or medium-term periods — only which, after all, are of direct relevance to the immediate problems. In the long run of course a liberal distribution policy *might* help the capital market to expand so that entry of new firms is facilitated, provided that in this long run, investment habits grow among the public. There is no such guarantee, however.

[2] Oscar L. Altman, *Saving, Investment and National Income*, T.N.E.C. (Monograph no. 37)

Our arguments are not offered as apologies for monopoly capitalism. If monopoly has to be checked, by all means we should use all the *appropriate* measures suited to that purpose. But we should first make sure of *all* the effects of these measures on national welfare.

To sum up. We have shown that:
(i) internal financing is not an evil in itself. For a correct appraisal of its effect on the growth of national income, the social and institutional background has to be taken into account. (ii) There is a strong case for allowing a normal rate of expansion to be met out of retained profits (the expansion requirement of Chapter 6). We have to add: (iii) that in a country like India at the present stage of development a high rate of profit retention and internal financing is desirable because the maximisation of saving and capital formation which can be achieved in this way serves the most critical need of the hour. It is gratifying that the Taxation Enquiry Commission did much to foster this attitude. (iv) Where comparable conditions [1] exist, public enterprises should also be expected to internally finance their expansion to a comparable extent [1]. Once this principle is recognised, the question of decisions in the case of departmental enterprises becomes purely a question of administrative adjustment, which it will not be difficult to make.

The question of expansion of the corporate sector has been already commended. We have tried to show that so long as the modern sector expands it is a matter of relative indifference from the purely economic point of view as to through what means it expands. With socialistic goals it is obvious that the prime role will be given to the public sector. The Indian government is nevertheless allowing quite a high rate of expansion to the (private) corporate sector. The question is of judiciously choosing the types of industries. Our study indicates some of the desirable lines from the point of view of higher saving propensity. Other considerations of planned priority like foreign exchange requirements, capital requirement, income-effect and employment-effect of the choice of investments, etc., will naturally have to be taken into account. Consistent with these considerations, an expansion of the corporate sector, when judiciously chosen, will conduce to the growth of the economy by giving play to its naturally high saving propensity.

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[1] Comparable to the same type of industry in the private sector.

6. SUGGESTIONS FOR COOPERATIVE RESEARCH AND FURTHER INVESTIGATION

We put forward the following major suggestions about research and collection of basic statistics concerning the study of business saving that emerge from our study:

(1) Investigation and collection of data on the same subject by several agencies are useful *when the findings of these several agencies are used as checks and counter-checks.* Perhaps the All-India Sample Survey is trying to check its results in the light of the findings of the RBI-Rural Credit Survey, but the authors of DWP estimate of capital formation did not seem to use the RBI-RCS material as a counter-check. This method of research and estimate should be corrected.

(2) A detailed study of the financial practices of the proprietors of unincorporated enterprises is very necessary. Private informations seem to indicate that All-India Sample Survey (AISS) which had previously collected data only on the expenditure side, is now paying attention to the collection of income data also. An intensive survey of both these types of data especially for the proprietary class of people is important for policy guidance as well as for academic research.

(3) Special surveys of the financial practices of the dividend-receiving people by income grading should be undertaken. This would help in correctly appraising the effect of distribution of profits on the capital formation of the country.

(4) The Reserve Bank of India has begun an extremely useful work on company finances. However, this is restricted to the large companies only. It is necessary to conduct similar investigations of corporate finances by different size classes. A separate coverage on the latter lines for private companies is also desirable.

(5) A full study of the financial practice and performance of public enterprises of all categories — departmental enterprises, companies registered under the ordinary Companies Act (public as well as private limited liability companies) and public corporations should be undertaken. This would enable a comparison of their performance which might help to remove many cases of inefficiency.

7. MAIN FINDINGS FROM ANALYSIS OF THE DATA

The investigations in Chapters 3—6 have covered a rather wide field. In many cases they have merely indicated the need for a much more thorough institutional rather than individual research before firm conclusions can be drawn. However, from the present study itself important policy conclusions with regard to the corporate and the unincorporated sectors of business have been drawn above in §7.2—5. Important suggestions for research and investigations emerging from our study have also been enumerated. We now propose to end by giving a summary rehash of the major findings connected with the question of saving and related matters that follow from an analysis of the data which we subjected to our study:

(1) If our assumptions about the saving-income ratio of the unincorporated enterprises are realistic, business saving constitutes nearly half of the total national saving of India.

(2) Savings of unincorporated enterprises then constitute the bulk of business savings.

(3) Corporations occupy an extremely small sector of the economy. As a result, they contribute a very small share to the pool of national saving. This share of saving is double the share of corporate profits to national income, indicating a fairly high rate of corporate saving (some 40 percent of net profit).

(4) Our investigation suggests that the national saving-income ratio was higher than that assumed in the Second Five Year Plan[1]: The target of the Second Five Year Plan which was set at 9 percent on an average during the plan-period[2] had probably been already achieved during the preceding period[3].

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[1] The planners in India seem to have been cautious in view of the prevailing (Western?) notion that very low savings are associated with the low income of the "underdeveloped" countries.

[2] See P. C. Mahalanobis, "The Approach of Operational Research to Planning in India", *op. cit.*, p. 28. The rate of 10.7 percent that is shown in the official *Second Five Year Plan* (summary, p. 5) seems to be an end-of-the-period estimate.

[3] See Table 28, *supra*, p. 114.

(5) Average profitability in India is not generally higher than in some of the capital exporting countries. But in certain specific lines of business it is probably more profitable, and it is generally on these that foreign investments are concentrated.

(6) Between profitability and corporate saving the only relation that is conclusively observed is that of a parallel *movement*. The upper limit to saving is of course set by the level of profits, but neither the differences in the level of profit nor the differences in the rate of profit directly govern the differences in the level or in the rate of saving.

(7) Judging by the postwar practice of profit-retention in several countries it is found that the postwar rate of corporate saving in India is much lower than that in the U.K. and the Netherlands. It is perhaps only slightly lower than that in the U.S.A. But the Indian rate — some 40 percent of net profit — is by no means low.

(8) Corporate *marginal propensity* to save in postwar India is very high — higher than that in some of the high-income countries.

Theoretical explanations of findings (6) — (8) have already been attempted in the text. There is no need to repeat them here.

(9) A major conclusion emerging from finding (8) has been drawn. It is this: In drawing up their plan of development the planners in India have taken into account the investment requirements, income and employment effects of developmental projects in the various sectors. It is urged that the saving effect (the marginal saving propensity) of the choice of investment may be integrated into the frame of planning. In this context, the saving effect of the unincorporated enterprises appears to be of very great importance.

(10) From finding (7) and certain other grounds it has been concluded that in the context of developmental requirements internal financing should not only not be discouraged, but it be adopted as the "performance test" for the public enterprises also.

APPENDICES

Appendix I

A note on the method of estimating the proportion of business carried on by the 750 companies covered by the Reserve Bank study and the 492 companies covered by the Taxation Enquiry Commission's study

(Refer to Table 2)

INTRODUCTORY REMARKS[1]

For a very rough calculation, the first method that comes to mind is to use the data on paid-up capital. However the raising ratio obtained by means of the criterion cannot be an accurate measure of the size of business as represented, for instance, by the total capital employed. The discrepancy comes chiefly from the composition of the company sector and from the peculiarity of one of the constituents of the sector: The company sector consists of the public limited companies and the private limited companies. It was found by the TEC that the paid-up capital method exaggerates the proportion of total business represented by private companies. The RBI attaches great significance to this fact, and has been trying to determine the exact proportion of the total Indian business of the company sector (excluding financial companies) covered by its sample companies.

The Department of Research and Statistics of the Reserve Bank of India *tentatively* arrives at the proportions of .53 for the RBI sample and .40 for the TEC sample. In the following note specially drawn up for our use, it is explained why a refined approach should be made to the estimating of the proportions of RBI and TEC sample companies, and estimates of these proportions are worked out. It is to be emphasised that these estimates relate to single-year proportions only (1953 for

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[1] We have great pleasure to acknowledge that while trying out various methods of obtaining a suitable raising ratio for stepping up the data relating to saving, income, total capital, etc. of the RBI and the TEC sample companies to cover the whole company sector, we received the fullest cooperation of the Department of Research and Statistics of the Reserve Bank of India. We also received the unfailing attention and courtesy of its Director, Dr. N. S. R. Sastry, who kindly answered all the queries we made in the course of our research.

RBI sample and 1951—52 for TEC sample). Further, the estimate of the proportion for the TEC sample is even more tentative than that of the RBI sample.

THE NOTE

It is well known that the relationship between paid-up capital and total business varies considerably between public limited and private limited companies. Hence it is not appropriate to make use of the ratio of these two factors obtained from public limited companies to make estimates for private limited companies. In this connection, a reference may be made to para 61 on page 132 of the Taxation Enquiry Commission's Report, Vol. I. It will be seen that the manufacturing business of private limited companies is substantially lower than that indicated by the proportion of their paid-up capital[1]. It may be noted that the TEC has used the criterion only to make estimates of capital formation for all public limited companies and the estimates on page 113 (Vol. I) of the Report do not cover private limited companies. Thus we have to follow an entirely different method for determining the proportion for the 750 companies in relation to the entire company sector which includes private companies also.

According to the Census of Manufactures for the year 1953, which pertains to manufacturing companies alone, the following figures indicate the volume of business of the private companies expressed as percentages of totals for public and private companies in India:-

	(Percentage)
Fixed Capital	21.1
Working Capital	14.7
Total Capital Employed	17.6
Gross Output	17.2

Among the items indicated above, total capital employed (net fixed capital and working capital) should be regarded as a somewhat accurate indicator of the proportion of business. Thus a very reasonable estimate of the volume of manufacturing business of private limited manufacturing companies would be 17.6% of the total business of all the manufacturing companies. The ratio indicated by gross output is also more or less the same. The TEC Report gives industry-wise breakup of private and public limited companies for non-manufacturing sectors also. For both manufacturing and non-manufacturing sectors together (excluding all financial companies), the paid-up capital of private limited companies formed 28.3% of the totals for all public and private limited companies. However, the TEC Report has revealed that such proportions indicated by paid-up capital have considerable upward bias in favour of private limited companies as the volume of their business is substantially lower than what is indicated by the size of their paid-up capital. It would thus appear that the proportion of business of non-financial private limited companies would be higher than 17.6% but substantially lower than 28.3% when both manufacturing and the remaining non-financial companies are considered together. On these considerations, we have presumed that the private limited companies account for 20% of the business of all companies (excluding all financial institutions).

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[1] On this account, the 750 public limited companies actually account for a larger proportion of the company sector than what would be the case if paid-up capital were used for determining the proportion.

The total capital employed (the value of total assets net) of all the 750 companies covered by our study of Company Finances amounted to Rs. 1010 crores in 1953. As these companies formed two-thirds of the public limited sector on the basis of paid-up capital, the total for the public limited sector would be Rs. 1515 crores. On the basis of proportion of 20% for private limited companies, the total for private and public limited companies would be Rs. 1894 crores. Thus the total assets of the 750 companies, i.e., Rs. 1010 crores would constitute about 53% of the total net assets of all public and private limited companies together[1].

A rough estimate of the coverage (40%) indicated with regard to the 492 companies included in the TEC's study has been arrived at in the following manner. If from the classification of paid-up capital shown in the TEC Report, Vol. I, page 105, banks, insurance companies, investment companies and other financial companies are removed, it will be seen that the paid-up capital of the remaining companies would be Rs. 527 crores in the public limited sector and Rs. 207 crores in the private limited companies sector. It is assumed that in respect of the private limited companies the proportion of business will be half of what is indicated by their paid-up capital. This is only a conjecture but it would appear from the percentages shown in table 21, on page 132 of the TEC Report, Vol. I, that in respect of manufacturing companies alone, it would be even less than half[1]. We have taken it as 50% on the presumption that the ratio may be higher in the case of non-manufacturing companies. On this basis, the proportion of business between private and public limited companies sector during the period covered by the TEC study would be 527:103. The coverage of the 492 companies, the paid-up capital of which amounted to Rs. 252 crores will be 252:630 or 40 percent.

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[1] If available, total assets (net) should be regarded a more dependable indicator of proportions than paid-up capital.

In recent years, on account of the relatively higher growth in the number and paid-up capital of private limited companies as compared to the corresponding growth of public limited companies, the share of the former in the total has increased. Our estimates show that the business of private limited companies has increased to one-fifth of the total of the company sector compared to one-sixth during the period covered by the TEC Report.

In the entire discussion above, branches of foreign companies have not been taken into account; the discussion relates exclusively to companies registered in India. All financial institutions are excluded from the purview of the discussion and the term "non-manufacturing" has been used to indicate only non-manufacturing non-financial companies.

If by making use of the two proportions (53% and 40%) estimates of profits and dividends in the entire company sector are worked out for the year 1951 based on both the sets of data, it will be seen that the figures show very close agreement.

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[1] A study of the relation between paid-up capital on the one hand and profits and capital formation on the other in respect of private limited companies (*vide* paras 62 to 66, pages 133—35, TEC Report, Vol. I) and public limited companies also reveals that the business of manufacturing private limited companies is substantially lower than even half the proportion indicated by their paid-up capital.

Appendix II

Determination of savings of financial companies

(Refer to Table 2)

A. First of all, we determine the ratio of paid-up capital of financial companies to the paid-up capital of *all* companies.

(*All amounts in Rs crores*)

1. Total paid-up capital of all companies	855.8	(Source: Statistical Abstract)
2. Do Banks & Insurance	83.7	(Statistical Abstract)
3. Do Investment Companies	26.7	(TEC Report. Vol. 1 Statement II)
4. (2) + (3)	110.4	
5. (4) as % of (1)	12.9%	

This percentage is relevant only when applied to Estimate I to arrive at the savings of financial companies. But we have applied it to the savings of all companies excluding financial companies (Estimate II). The resulting error slightly under-estimates the magnitudes. We have not revised the figures in the text as the error was detected after the printing was over. Comparative figures are worked out at the end of this appendix.

B. If we want to operate with Estimate II the ratio will have to be differently determined.

The total of Rs 855.8 crores includes financial companies. However, we have to determine the ratio of the paid-up capital of financial companies to the paid-up capital of all companies excluding financial companies.

Therefore the relevant total is Rs crores (855.8 — 110.4) = 754.4.

The appropriate ratio is therefore 14.8% which gives the raising factor appropriate to *Estimate II.*

Estimate III (b) which is arrived at by the formula $\text{Estimate II} \times \frac{100}{87}$ may be compared with the result of $\text{Estimate II} \times \frac{100}{85}$ as follows:

$\text{Est. II} \times \frac{100}{87}$ = Est. III (b)	$\text{Est. II} \times \frac{100}{85}$
35.32	36.15
26.70	27.33
46.13	47.21
12.97	13.27
30.54	31.26
49.82	50.99
14.25	14.59
27.17	27.81
35.95	36.80
59.28	60.67

We thus have the consolation that the estimate presented in Table 2 in the last two columns (5a and 5b) are slight under-estimates and not over-estimates.

Appendix III

Calculation of clandestine transfer of Indian funds abroad through trade channels

(Refer to Table 4)

Dr. Rangnekar (*op. cit.*, p. 222) gives the estimate of "concealed holding of international assets" for the years 1948—49 to 1951—52. The method of financing these international holdings is the under-valuation of private export invoices and overvaluation of private import invoices — estimated at 5 percent (see Rangnekar, *op. cit.*, pp. 220—21) of the values of private exports and imports.

We treat the resulting sums as funds illicitly transferred abroad. There are difficulties in obtaining information about the total value of private exports and imports since the *Accounts Relating to the Foreign (Sea, Air and Land) Trade and Navigation of India* do not give separate break-down for Government [1]. We take it that Dr. Rangnekar has made allowance for the item. This is confirmed by the following:-

[1] "Imports and Exports of *Government Stores* were dealt with separately upto March, 1948. The separate registration of these stores has since been discontinued

(*Amounts in Rs crores*)

Year	Import and export excluding treasures (1)	5% of (1) (2)	Rangnekar's figure (3)	(2)—(3) (4)	*(4) as % of (2)* (5)
1948—49	946	47	39	8	
1949—50	1,086	55	43	12	
1950—51	1,150	58	49	9	
1951—52	1,545	77	67	10	
		237		39	*16.5%*

For later years we make a slightly higher allowance for such a difference, say, of 19.5% instead of 16.5%, considering that imports on government account were higher in later years. It is possible to make a more exact calculation — but the work is extremely difficult in the Netherlands since the relevant published statistics are not all available. But our rough and ready estimate is not likely to involve any large error in the aggregate. The aggregate difference is evenly distributed over all the years:-

(*Amounts in Rs crores*)

Year	Import [1] (1)	Export [1] (2)	5% of (import + export) (3)	19.5% of total of (3) distributed evenly (4)	Final estimate (3) — (4) (5)
1952—53	670	578	63	12	51
1953—54	572	531	56	12	44
1954—55	656	594	63	12	51
1955—56	679	597	64	12	52
			246	48	

[1] Excluding treasures (gold and silver excluding Government of India coins and currency notes).

Cols. (1) and (2) taken from *RBIB*, May 1958, p. 615.

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and combined figures of trade in private merchandise and Government stores are published", *Accounts Relating to the Foreign (Sea, Air and Land) Trade and Navigation of India for March, 1956* (Government of India, Ministry of Commerce and Industry, Department of Commercial Intelligence & Statistics, Calcutta), p. vi.

Appendix IV

Estimates of components of income of unincorporated enterprises

(Refer to Schema on page 85 and to Table 10 on page 88)

A. Recapitulation of the scheme for making the estimate:
(Sources given on p. 84 in the text)

Items from the schema on page 84

1. Income of employers and independents belonging to "other commerce"
2. *plus* income from factory establishments
3. *plus* income from mining
4. *Less* Salaries and wages of factory establishments
5. ,, Salaries and wages of mining
6. ,, Operating surplus of all corporations
7. ,, Income generated by govt. (public) factory and mining establishments

Equal (8) Income of unincorporated enterprises.

B. Estimate of the total income of unincorporated enterprises:

(*Amounts in Rs crores*)

Serial No.	1948	1949	1950	1951	1952	1953	1954	1955
1	1,005	1,032	1,038	1,086	1,094	1,101	1,094	1,109
2	550	540	550	640	640	690	750	810
3	60	60	70	90	90	100	100	100
Less 4	166	177	172	189	196	205	213	231
,, 5	47	47	47	43	39	36	36	36
,, 6	173	102	156	207	137	161	190	237
,, 7	43	42	43	51	51	55	60	64
Equal (8) Income of unincorporated enterprises	1,186	1,264	1,240	1,326	1,401	1,434	1,445	1,451

C. (i) *Salaries and wages of mining* obtained by multiplying the number employed by an average amount of wage per miner. We have allowed Rs 50 per head per month (Rs 600 per year) which seems to be an over-estimate in the light of the rates fixed by the Conciliation Board during 1947—49 (See Wadia & Merchant, *op. cit.*, p. 484). We therefore allow this amount to include salaries also. Incidentally, the wage bill thus arrived at for 1950 constitutes 50 per cent of the income originating in mining that year. The calculation is made below:-

Wage bill of mining industry

Year	Number employed	×	Av. annual income		Rs. crores	Source of employment figure
1948	777,000	×	600	=	46.62	Final report of N.I.C.
1949	778,000	×	600	=	46.68	Do
1950	780,000	×	600	=	46.80	Do
1951	717,000 [1]	×	600	=	43.02	[1] obtained by intrapolation.
1952	654,000 [1]	×	600	=	39.24	
1953	592,000 [2]	×	600	=	35.52	[2] Monthly Abstract of Statistics, quoted by M. L. Gupta; *Problems of Unemployment in India*, p. 31.
1954	595,000 [3]	×	600	=	35.70	[3] Assumed arbitrarily.
1955	600,000 [3]	×	600	=	36.00	

(ii) *Operating surplus of all corporations (of the private sector)*

We step up the TEC and RBI sample figures.

Since we saw in the case of estimates of corporate savings that it does not make a very great difference whether we apply the rather sophisticated method of arriving at proportions, or we use the rough approach of the proportion of paid-up capital, we use the latter, to avoid the complications of including financial companies in the former case. The transformers used are .335 and .410 respectively for the TEC and RBI samples. The result may be a slight over-estimate of corporate profits and a corresponding under-estimate of the income of unincorporated enterprises. The position emerges is follows:-

Year	Sample	Profits before tax for sample companies (Rs. crores)	Sample companies as proportion of all companies	Profits before tax of all companies (in round numbering (Rs. crores)
1948	T.E.C.	58.10	.335	173
1949	,,	34.32	.335	102
1950	R.B.I.	63.68	.410*	156
1951	,,	85.16	.410*	207
1952	,,	55.70	.410*	137
1953	,,	65.63	.410*	161
1954	,,	78.46	.410*	190
1955	,,	97.36	.410*	237

* Average proportion for 3 years 1950—52.

Appendix V *(Refer to Table 19)*

A. *Ratio of sectoral income to national income India, 1948—55.*

Serial No.		Year or period	Type of sectoral income		Type of aggregate income		(3) as % of (5)
			Description	Amount in Rs crores	Description	Amount in Rs crores	
	Source/Col. no	(1)	(2)	(3)	(4)	(5)	
1.	C.S.O., Estimate of National Income 1948-49 to 1955—56	1948—55 (8 years)	Agriculture	37,340	Net domestic product at factor cost	76,820	48.6
2.	Table 2	,,	Small enterprises	7,500	,,	,,	9.8
3.	,,	,,	Commerce & transport outside modern sector	11,510	,,	,,	15.0
4.	,,	,,	Mining & factories	5,840	,,	,,	7.6
5.	,,	,,	Communications (modern) Railways Organised banking & insurance	2,470	,,	,,	3.2
6.	,,		a. Professions & liberal arts	4,000			5.2
			b. Govt. services (adm.)	3,720			4.8
			c. Domestic services	1,060	,,	,,	1.4
			d. Others (house property etc)	3,380			4.4
			Total	76,820	,,	,,	100.0

which is net domestic product at factor cost. National Income is arrived at after deducting foreign deficit on external accounts.

B. *Distribution of Working force*

Serial No.	Source	Year	Sector	Number (crores)			Number (crores)	Percentage of total W.F.
1.	Census, N.I. Report	1951	Agriculture		10.03	Total Working Force	14.32	70.0
2.	”		Small enterprises		1.15	”	”	8.0
3.	”		Commerce & transport outside modern sector		.96	”	”	6.7
4.	Statistical Abstracts		Mining & Factories	.06 .25	.31	”	”	2.2
5.	”		Railways and Communication Banking and insurance	.09 .02 .01	.12	”	”	.8
6.	N.I. Report		a. Professions & liveral arts		.64	”	”	5.4
	Statistical Abstracts		b. Govt. services (adm.)		.13	”	”	.9
	N.I. Report		c. Domestic services		.29	”	”	2.0
			d. Not comparable in terms of working force					

C. *Trend of relative share of the modern sector in the composition of national income*

Annual percentages 1948—55

	1948	1949	1950	1951	1952	1953	1954	1955
Mining & factories	7.0	7.6	6.5	7.3	7.4	7.6	8.8	9.4
Communications, Railways, Organised banking & insurance	2.9	3.0	3.0	3.3	3.1	3.1	3.5	3.7
Total modern enterprise sector	9.9	10.6	9.5	10.6	10.5	10.7	12.3	13.1

Source: C.S.O., *Estimates of National Income 1948—49 to 1955—56*, Table 2.1.

Appendix VI

Percentage distribution of income generated by private and public sub-sectors of modern enterprises sector

(Refer to Table 20)

The percentage share of income generated by the private enterprises sector is derived by deducting the net output of government enterprises from the net output of the total modern sector as follows:

	1948-9	1949–50	1950–1	1951–2	1952–3	1953–4	1954–5
	(Net domestic product = 100.0)						
1. Mining & Manufactures	7.0	6.7	6.5	7.3	7.4	7.6	8.8
2. Communications, Railways, Organised banking & insurance	2.9	3.0	3.0	3.3	3.1	2.2	3.5
3. *minus* net output of govt. enterprises	2.8	3.0	3.0	3.2	3.1	3.0	3.7
4. Equal net output of private modern sector	7.1	6.7	6.5	7.4	7.4	6.8	8.6
5. Total Modern enterprises sector	9.9	9.7	9.5	10.6	10.5	9.8	12.3

For the whole period 1948—9 to 1954—5

	(Rs abja)		
1. Mining & Manufactures	49.3	6. *(4) as % of (5)*	*7.3*
2. Communications, Railways, etc.	21.1	7. *(3) as % of (5)*	*3.1*
3. *minus* net output of govt. enterprises	21.1	8. *(6) + (7)*	*10.4*
4. Equal net output of private modern sector	49.3		
5. Net Domestic product	671.7		

Source: CSO, ENI, 1948—49 to 1955—56 Tables 2 & 3.

Appendix VII

Total Productive Capital employed (including depreciation) in the modern sector — 1950—51

— By type of ownership

(Refer to Table 22)

		Rs crores
I	*Public Sector* (Book value of gross fixed assets plus working capital)	
	Railways	837
	Irrigation works (including multi-purpose river valley projects)	230
	Communications & broadcasting	53
	Electricity undertakings	40
	Industries	14
	Civil aviation	10
	Ports	8
	Central Tractor Organisation	5
	Port trusts, municipalities & other semi-public agencies	100
	Total	1,336
II	*Private Sector* (Productive capital including depreciation to make comparable to I)	
	Factory establishments	1,110
	Plantations	100
	Electricity undertakings	70
	Mines	30
	Shipping & aviation	32
	Motor transport	130
	Total	1,472
	Grand total	2,808

Source: FFYP, p. 32.

Appendix VIII

Net output of modern private sector, 1951—52

(Refer to Table 24)

		Rs crores
1.	Govt. enterprises	320 [1]
2.	(a) Mining and manufactures	730 [2]
	(b) Communications, Railways organised banking and insurance	330 [3]
3.	Total (2a + 2b)	1060
4.	Net output of modern private sector ((3) — (1))	740

Source: CSO, ENI, for (1) Table 3 & for (2) Table 2.

Appendix IX

Index of increase in the productive capital in the public and modern private sectors

(Refer to Table 25; also Table 23)

A. DESCRIPTION OF THE METHOD

We first determine the absolute values by sectors and then build up the index. We take the public sector first.

I *The Public Sector*

Our starting point is the year 1950, for which a very rough estimate of book value of *gross* productive capital is given in FFYP., p. 32, as shown in the Appendix to our Table 29.

For the purpose of showing the progress over years net productive capital is better suited. And since the net figures for the private sector is readily available, we shall attempt to estimate the corresponding net figures for the public sector.

Further, progress is to be assessed on the basis of a value of assets expressed in constant prices. This requires the separation of fixed capital and working capital, since the two need different deflators *prima facie.*

For tackling these problems we shall first work out the figures for 1950 on the basis of the following assumptions for the industries which we have split into (1) Railways and (2) Others:-

1. *Railways.*

(a) *Depreciation: Fixed assets (F.A.):* These are likely to have been more than 10 years old, with hardly any replacements. At least 50 percent of the assets are therefore assumed to have depreciated. In all probability, this is lower than the actual depreciation, — not higher [1]. The fact that this is an assumption on the lower side, means that the estimate of assets in the year 1950 are, if anything, over-estimates. Since we are considering the index of increase in later years over the year 1950, it further implies that our tentative index of increase may be an under-estimate, but it is not an over-estimate.

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[1] Extremely bad conditions of the railway locomotives and rolling stock were reported during the early postwar years. Thus the implied assumption of a 20-year life-time of fixed assets in railways which may under-estimate the life-time of railway assets and therefore over-estimate the rate of depreciation is counteracted.

(b) *Working capital* (WC). It is assumed to constitute 25 percent of net productive capital, which is the same thing as saying that net fixed assets (NFA) are three times the working capital. From a study of the Census of Indian Manufactures for the years 1949—53 we find that working capital in the 29 industries covered by the census constitutes 58 percent of the net productive capital. But these cover mainly the consumption goods industries whose working capital requirements are relatively larger than those of capital goods industries. Railways are well-known for their relatively larger fixed capital requirements and lower working capital requirements. We have thus arbitrarily (but not unreasonably) assumed the ratio of 25 percent.

2. *Others:*

(a) *Depreciation:* The fixed assets were mostly acquired towards the end of the war and after the war. A depreciation of only 25 percent is therefore allowed.

(b) *Price:* The original value is assumed to be in 1949 prices. This is raised to 1950 prices by an appropriate price index which is described later.

(c) *Working capital:* It is assumed to constitute 40 percent of net productive capital.

Planning Commission's figures for 1955—56 (achieved) and 1960—61 (planned) are net additions (new outlay). The problem of deducting a depreciation allowance does not therefore arise. The only problems are (i) to decompose the outlay figures into fixed capital and working capital, which we do on the basis of the same set of assumptions as described above; and then (ii) to deflate them appropriately.

II *The Private Sector*

(a) *Two sets of comparable estimates of capital*

(i) Comparable estimates of capital can be worked out for the years 1950 and 1955—60 from the Census of Indian Manufactures, FFYP estimates and SFYP (Summary). Figures for 1955 are not available to us from the same sources.

(ii) RBI sample survey of company finances gives the balance sheet figures of capital for the years 1950—55. We can therefore get an index for 1955 (base 1950 = 100) directly.

With the help of this index we can transform the 1950 estimate of capital into an estimate for 1955. Adding the planned (detailed) capital investments for the Second Plan period, we arrive at the 1960 figure. Deflating to 1949 prices is the next problem, which is tackled in section (C) below.

(b) *Net fixed assets:* The figures of net fixed assets are directly available. There is therefore no problem of depreciation. On the other hand, the depreciation allowed for the second item ("Others") in the public sector is lower than that allowed in the private sector. Real depreciation being unknown, it is futile to try to state anything very definitely on the implications of this difference; but generally the fixed assets in the private sector are older and without repairs and replacements for a long time.

(c) *Working capital:* 58 percent of the net productive capital (net fixed capital + working capital) was the ratio of working capital for the period 1949—53 (Census of Indian Manufactures). The same ratio has been assumed for later years also.

B. CHOICE OF THE YEAR AT THE PRICES OF WHICH THE CAPITAL VALUE HAS BEEN KEPT CONSTANT

We have chosen the year 1949 as a matter of convenience. The price index of steel and other producers' goods in the U.K. is expressed in terms of 1949 as the base year in the *Annual Abstract of Statistics* of the United Kingdom, 1957. Our price index of fixed assets are based on the price index of certain producers' goods of U.K.

C. PROCEDURE OF DEFLATING

1. *Assumptions*

(i) It has been assumed that the acquisition of fixed assets during

1950—55 was distributed evenly over those years. It is further assumed that the price of these assets also rose smoothly. Thus the deflated value of the additional fixed assets is equal to the 1955 value of these assets divided by the average of the price indices for 1950 and 1955. (The assumption of a smooth rise in prices of capital goods is not very unrealistic. See, for instance, the price indices of Chemical and allied products, Iron and Steel, Products of blast furnaces etc., in the *Annual Abstract of Statistics* for the United Kingdom, 1957, p. 301).

(ii) Second Plan figures of capital are assumed to be actuals in 1956 prices. Subsequent pruning of the Plan and deflation for further rise in prices are allowed in the final figures.

2. *Price indices used for the purpose of deflating*

I. *Price index of fixed assets*

This is built on the basis of the price indices of basic capital goods like Iron and Steel, Chemical and allied products, and Products of blast furnaces and iron and steel melting and rolling, in the United Kingdom (*Annual Abstract of Statistics*, 1957, Table 345, p. 301). For Railways we take only Iron and Steel, and for others, all the three groups.

(Base 1949 = 100)

	Iron & Steel	Chemical & Allied products	Products of blast furnaces etc.	Average of (1), (2) & (3)
	(1)	(2)	(3)	(4)
1950	101	104	101	102
1955	148	133	152	144
1956	159	139	164	154

Average 1950 and 1955

(i)	For *Railways*	(col. 1)	124
(ii)	For *Others*	(col. 4)	123

II. *Price index of working capital*

On the basis of CIM figures, wages are assumed to constitute half of the working capital. The other half is distributed equally over semi-manufactured and manufactured articles for the public sector, and over industrial raw materials and semi-manufactured articles for the private sector.

Figures of average monthly wages per factory worker are taken from the I.L.O. *Yearbook of Labour Statistics*, 1957.

It gives figures for 1939, and 1950 to 1955. The index of 1950 is built with 1949 = 100 on the basis of the All-India working class cost of living index. For the year 1956 half of the rise of the same over 1955 is allowed.

Price indices are taken from *Statistical Abstracts* of India.

Public sector

	Monthly wages in mfg. ind. (in absolute amounts)	Price Indices 1939 = 100 Semi-Mfg. articles	Mfg. articles	Indices 1949 = 100			Weighted average index
Year/Col.	(1)	(2)	(3)	(1)	(2)	(3)	(Final)
1949	79.8	328	344	110	100	100	100
1950	80.6	341	348	101	104	104	102.5
1955	97.8	333	373	123	101	108	114
1956	103.0	390	382	129	119	111	122
Weights				2	1	1	

Private sector

Note: Wages in mining has been taken into account. Since mining employement is about 20 per cent of total, it has been directly added to the wage rate in the manufacturing industries, without making any farther weighting, so that the index of wages becomes weighted index only approximately.

	Monthly wage rate (Rs) Mfg.	Mining	Indices 1939 = 100 Industrial raw material	Semi mfg.	Indices 1949 = 100			Weighted average index
Year/Col.	(1)		(2)	(3)	(1)	(2)	(3)	(Final)
1949	79.8	14.0	464	328	100	100	100	100
1950	80.6	14.2	503	341	101	108	104	103.5
1955	97.8	14.4	411	333	120	88.5	101	107
1956	103.0	15.1	488	390	126	105	119	119
Weights					2	1	1	

D. THE ESTIMATE OF CAPITAL

(Deflated in 1949 prices)

I. *The Public Sector*

We estimate successively for the years 1950, 1955 and 1960. All amounts are in crores of rupees. The following abbreviations are used:

FA means Fixed Assets
NFA ,, Net Fixed Assets
GFA ,, Gross Fixed Assets
WC ,, Working Capital

1950

(1) *Railways*

$$WC_{1950} + GFA_{1950} = 837$$

Assumption: Depreciation: @.50 ; $GFA_{1950} = 2\ NFA_{1950}$

$$(WC_{1949} \times 1.025) + (GFA_{1949} \times 1.01) = 837$$
$$(WC_{1949} \times 1.025) + (2\ NFA_{1949} \times 1.01) = 837$$

Assuming: $NFA_{1949} = 3\ WC_{1949}$

$$WC_{1949}\ (1.025 + 6.06) = 837$$
$$WC_{1949} = 837 : 7.085 \doteq 118$$

$837 - (118 \times 1.025) = GFA_{1950} = 716$

$NFA_{1950} = {}^1/_2\ GFA_{1950} = 358$

$NFA_{1949} = 358 : 1.01 \doteq 354$ $(= 3 \times 118)$

(2) *Others:*

$$(WC_{1949} \times 1.025) + (GFA_{1949} \times 1.02) = 499$$

Depreciation: @.25 $GFA = NFA : 0.75$

By supposition: $NFA_{1949} = \frac{60}{40}\ WC_{1949} = 1.5\ WC_{1949}$

$$(WC_{1949} \times 1.025) + (1.5\ WC_{1949} : 0.75 \times 1.02) = 499$$
$$WC_{1949}\ (1.025 + 2.04) = 499$$
$$WC_{1949} = 163$$
$$GFA_{1950} = 499 - (163 \times 1.025) = 332$$
$$NFA_{1949} = 332 \times 0.75 : 1.02 = 244$$

Total productive capital, 1950
in 1949 prices $118 + 354 + 163 + 244 = 879$

1955

(1) *Railways*

Additional WC: $(WC_{1949} \times 1.14) + (3WC_{1949} \times 1.24) = 250$

$WC_{1949} = 250 \div (1.14 + 3.72) = 51$

Total WC_{1949} *in 1955* $= 118 + 51 = 169$

Additional FA : $NFA_{1955} = 250 - (51 \times 1.14) = 191$

$NFA_{1949} = 191 \times 1.24 = 154$

Total NFA_{1949} *in 1955* $= 354 + 154 = 508$

(2) *Others*

Additional WC : $(WC_{1949} \times 1.14) + (1.5\ WC_{1949} \times 1.23) = 955$

$WC_{1949} = 955 \div (1.14 + 1.845) = 319$

Total WC_{1949} in 1955 = 163 + 319 = 482

Additional FA : $NFA_{1955} = 955 - (318 \times 1.14) = 592$

$NFA_{1949} = 592 \div 1.23 = 482$

Total NFA_{1949} in 1955 = 244 + 482 = 726

Totals of (1) & (2):

(i)	*NFA in 1949 prices*	*1,234*
(ii)	WC in 1949 prices	*651*
	Total productive capital, 1955 (in 1949 prices)	*1,885*

1960

(1) *Railways*

Additional WC : $(WC_{1949} \times 1.2) + 2\ (3WC_{1949} \times 1.59) = 864$

$WC_{1949} = 864 \div (1.11 + 4.77) = 144$

Total WC_{1949} *in 1960* *169 + 144 = 313*

Additional FA : $NFA_{1960} = 864 - (144 \times 1.22) = 688$

$NFA_{1949} = 688 \div 1.59 = 433$

Total NFA_{1949} *in 1960* *508 + 433 = 941*

(2) *Others*

Additional WC : $(WC_{1949} \times 1.22) + (1.5\ WC \times 1.54) = 2004$

$WC_{1949} = 2004 \div (1.22 + 2.31) = 568$

Total WC_{1949} in 1960 482 + 568 = 1050

Additional FA : $NFA_{1960} = 2004 - (568 \times 1.22) = 1331$

$NFA_{1949} = 1331 \div 1.54 = 865$

Total NFA_{1949} in 1960 726 + 865 = 1591

Totals of (1) & (2)

(i)	*NFA in 1949 prices*	*2,532*
(ii)	*WC in 1949 prices*	*1,363*
	Total productive capital, 1960 (in 1949 prices)	*3,895*

In the light of the recent revision of the Second Plan targets announced by India's Minister for Planning in the Lok Sabha on September 17, 1958 (See *India News*, London Sept. 20, 1958), we can make further adjustments of a very rough order as follows:-

Pruning in terms of financial targets represents a cut of 6.3 percent. It is authoritatively assumed that a rise in price level over the original plan is going to be about 10 to 15 percent [1]: These two things together represent a cut of some 20 percent in real terms.

We allow this rough deflation on the planned addition to capital (1949 prices) at the end of the Second Plan, without caring to differentiate between fixed capital and working capital:-

Thus, (144 + 433 + 568 + 865) × .80 = 1,608.

Consequently,

the *total capital in 1960 (1949 prices)* is *1,885 + 1,608 = 3,493.*

II. *The Private Sector*

The estimate of capital (Deflated in 1949 prices)

Here again, as in the case of the public sector, we take the rough estimates of the FFYP, p. 32, as the starting point. We improve the figures by going directly to the source in the case of factories, viz., the Census of Indian Manufactures (Summary for 1949—53, *Supplement to the Indian Trade Journal, March 31, 1956*).

The coverage of factories in the CIM in 1950 was 93 percent of the units. In the absence of any better measure of coverage, we shall use this ratio to step up for all the factory establishments.

The ratio of capital in the factory establishments to the capital of the modern private sector covered in the FFYP estimate is 75.4 percent. We use the same ratio to step up our figure of net capital (FFYP figures are for gross capital) to cover the entire modern private sector in terms comparable with the FFYP coverage.

WC constitutes 58 percent of total capital and NFC 42 percent. (CIM, both for average of 1949—53 and for 1950). The same is assumed for the whole private sector; also for the entire period under review.

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[1] Dr. P. S. Lokanathan, "Plan Achievements are Impressive", in *India News*, London, October 4, 1958, p. 7.

The actual calculations for 1950, 1955, and 1960 are, then, as follows:-

(All amounts in Rs crores)

1950

Formula:

$$(WC_{1949} \times \text{price index WC}) + (NFA_{1949} \times \text{price index NFA}) = \text{Productive capital (current)}$$

$WC_{1949} = .58$ Productive capital (1949)

$$NFA_{1949} = \frac{42}{58} WC_{1949}$$

Productive capital of factories in 1950 = 615

$$\text{Stepped up for coverage, } 615 \times \frac{100}{93} = 661$$

Thus,

$$(WC_{1949} \times 1.035) + (WC_{1949} \times \frac{42}{58} \times 1.02) = 661$$

$$WC_{1949} = 661 \div (1.035 + 0.74) = 374$$

$$NFA_{1950} = 661 - (374 \times 1.035) = 275$$

$$NFA_{1949} = 275 \div 1.02 = 270$$

Productive capital for the whole private sector in 1949 prices

$$= (374 \times \frac{1000}{754}) + (270 \times \frac{1000}{754})$$

or 496 + 358 = *854*

1955

We first build up an index from the combined balance sheet of RBI sample companies and then apply it to 1950 figures above to get our estimates for 1955:

$$\text{NFA, } \textit{increase} \text{ in 1955 over 1950} = \frac{444}{302} = 147.2$$

Total quantity of NFA in 1955 in 1949 prices = 358 × 147.2 ÷ 1.23 = *430*[1]

,, ,, ,, WC ,, ,, ,, ,, ,, $= 430 \times \frac{58}{42}$ = *593*

Net productive capital in 1955 in 1949 prices *1,023*

---

[1] If we take deflated index first, we get $\frac{444 \times 100/123}{302 \times 100/102} = 122.$ Thus, 358 × 1.22 = 437, a figure which is only slightly different.

1960

Additional, end of Second Plan (planned) as per SFYP, p. 25, (1) + (2) + half the stocks = 900

a. $(WC_{1949} \times 1.19) + (WC_{1949} \times 1.54 \times \frac{42}{58}) = 900$

$$WC_{1949} = 900 \div 2.31 = 390$$

b. Additional $NFA_{1950} = 900 - (390 \times 1.19) = 572$

Additional $NFA_{1949} = 572 \div 1.54 = 371$

Total $NFA_{1949} = 430 + 371 = 801$

Total $WC_{1949} = 593 + 390 = 983$

Total net productive capital in 1960 in 1949 prices = 1,784

E. THE INDICES OF INCREASE IN CAPITAL

1. *The course of productive capital:-*

	1950	1955	1960
(a) *Public sector*			
Absolute amounts (Rs crores, in 1949 prices)	879	1,885	3,895[1] (3,493)[2]
Index	*100*	*214*	*443*[1] *(397)*[2]
(b) *Private sector (modern)*			
Absolute amounts (Rs crores, in 1949 prices)	854	1,023	1,784
Index	*100*	*120*	*209*
Total of public and private sectors (modern)			
Absolute amounts (Rs crores in 1949 prices)	1,733	2,908	5,679[1] (5,277)[2]
Index	*100*	*168*	*328*[1] *(305)*[2]

Appendix X

(Reference: Table 25)

Part I: Sources and method of estimation

Col. (1) Net domestic product: Taken from ENI

(2) Profits of corporate sector estimated thus as follows:

---

[1] Without taking the revision of the Second Plan into account.

[2] After making a rough allowance for the revision of the Second Plan.

(a) Profits-before-tax of RBI Sample Companies (1950—55) Stepped up (for the method of deriving the raising ratios see Appendix I.) *Rs crores*

$$446 \times \frac{100}{53} \times \frac{100}{86} = 976$$

(b) For the years 1948 & 1949, TEC sample stepped up:

$$230 \times \frac{100}{40} \times \frac{100}{86} = 267$$

1,246

(3) Profits of unincorporated enterprises, see Table 10

(4) Retained profits of foreign enterprises: Given in SIFLA, *Report II, p. 18* (Rs 93 crores) plus allowing for uncovered six months of 1948 (January—June) a sum of Rs 6 crores, (half the average annual rate for 1948—1953). For a profit series of foreign enterprises, see Appendix XI.

(5) Operating surplus of govt. enterprises:
Source: CSO, ENI, Table 7. Assuming for the year 1955—56, which is not reported there, the same surplus as in 1954—55.

Appendix XI

Profits of foreign enterprises, 1948—55

(Reference: Table 26)

Table showing the calculations is given on next page.

Method: (i) 1948—53 constructed on the basis of absolute profits for 1953 as reported in RBIB Jan. 1956, and with the help of an index of profits as shown. Profits of the so-called portfolio investments (Rs 3 crores) are excluded as they are included in the Indian joint stockcompanies.

(ii) For the year 1955, absolute amounts taken directly from RBIB, May 1958, to which correction for coverage is introduced (RBIB May 1958, statement I shows for the U.K. & U.S. Rs 26.38 crores for 1953 whereas the total coverage for the same year in RBIB Jan. 1956 shows

Year	Index number (Stat. Abs. 1953–54 (Base 1939 = 100)	(Base 1953 = 100)		Profits after tax (Rs crores)	Profits before tax (3) × 1.68 (Rs crores)	Less allowing for profits in controlled Indian companies
	(1)	(2)		(3)	(4)	(5)
1948	259.9	99.5		30.85	*	*
1949	181.5	69.5		21.55		
1950	246.6	94.4		29.26		
1951	310.5	118.9		36.86		
1952	190.6	73.0		22.63		
1953	261.2	100.0		31.00		
1953	(based on RBI study of company finances, Sept. 1957)	100.0	Profit after tax 31			
1954		118.6	(36.77)	34.00		
1955		(154.3)	(47.83)	42.00		
Total	1948—55			248.15	416,89	83.38

* Annual breakdowns are not shown as they are not required for our reference Table.
Also for 2 earlier years

1946	229.2	87.4	27.09
1947	191.6	73.4	22.75

Rs 31.00 crores as the round figure; therefore the correction is of the order of 1.19 times).

Rs 30.46 (for 1955) × 1.19 = 36.26.

On the other hand, when we construct index numbers of profit with base 1953 = 100 on the basis of RBI study of company finances, the corresponding figure for 1955 becomes as 47.83 crores, and for 1954, Rs 36.77 crores. We have therefore taken an approximately middle figure of the two estimates.

(iii) Col. (3) represents the profits of foreign enterprises after tax neglecting the profits on portfolio investment.

(iv) In column (4) we transform the after-tax figure of profit into a before-tax figure, on the basis of the proportion of the 6-year totals in the RBI study of company finances: Rs 446 crores as a multiple of Rs 265 crores = 1.68 times.

(v) For aggregate profits made in India, which includes Indian corporate and unincorporated business, government enterprises and foreign enterprises, we have to estimate the double counting of profits of companies registered in India which are controlled by foreigners, since these are included in the profits of Indian companies. This is done in column (5).

In column (5) we allow 20 percent of profits accruing to foreign investments in Indian jointstock companies controlled by foreigners. This we do on the basis of the rough proportion calculated for the year 1953 (exact proportion is 6:31 = .194). The resulting sum has approximately to be deducted.

Appendix XII

(Reference: Table 28)

I Total national capital formation, India 1948—53

(without deducting the nation's deficit on current account) and its percentage to net domestic product at factor cost.

(All amounts in Rs crores)

	Net domestic product at factor cost	Corrected estimates of capital formation lower limit	upper limit	Percentages (2) : (1)	(3) : (1
Year/Col.	(1)	(2)	(3)	(4)	(5)
1948—49	8,670	686	764	7.9	8.8
1949—50	9,030	681	766	7.6	8.5
1950—51	9,550	778	871	8.1	9.1
1951—52	9,990	1,016	1,120	10.2	11.2
1952—53*	9,830	761*	834*	7.7	8.5
1953—54*	10,480	862*	948*	8.2	9.0
1948—53 (6 years)	57,550	4,784	5,303	8.3	9.3

---

* Inventory for these two years has been treated as zero. The R BI sample companies actually show negative inventory.

II Saving and its percentage to national income.

	National Income	Net lending to the rest of the world	Net domestic capital formation plus (2) saving lower limit	upper limit	Percentages 3 : 1	4 : 1
Year/Col.	(1)	(2)	(3)	(4)	(5)	(6)
1948—49	8,650	- 239	447	525	5.2	6.1
1949—50	9,010	— 50	631	716	7.0	7.9
1950—51	9,530	56	834	927	8.8	9.7
1951—52	9,970	— 174	842	946	8.4	9.5
1952—53*	9,820	74	835	908	8.5	9.2
1953—54*	10,480	66	928	1,014	8.9	9.7
1948—53 (6 years)	57,460		4,517	5,036	7.9	8.8

* Inventory for these two years has been treated as zero. The RBI sample companies actually show negative inventory.

Sources:
1. Figures of capital formation from Table 15 and DWP
2. Net domestic product and national income figures from ENI.
3. Figures of net lending abroad from DWP.

Appendix XIII

Calculations of gross capital formation and gross national product, India, 1948—53

(Reference: Table 30)

(All amounts are in Rs. crores)

Assuming 20 percent[1] of gross capital formation as depreciation, we add to net capital formation (n.c.f.) a figure which is .25 of the n.c.f. The latter is also added to the net domestic product (taken from ENI) to obtain the gross national product. These are worked out below:-

---

For this assumption consult M-G, op. cit.

I *The lower limit*

Year	Net capital formation *plus* .25 of n.c.f.	Gross capital formation	Gross National Product	*Gross capital formation as % of G.N.P.* (1) as % of (2)
		(1)	(2)	(3)
1948	686 + 172	858	8,842	*9.7*
1949	685 + 171	856	9,201	*9.3*
1950	778 + 195	973	9,745	*10.0*
1951	1,016 + 254	1,270	12,044	*10.5*
1952	761 + 190	951	10,020	*9.5*
1953	834 + 209	1,043	10,689	*9.8*
	Total	5,951	60,541	*9.8*

II *The upper limit*

Year	Net capital formation *plus* .25 of n.c.f.	Gross capital formation	Gross National Product	*Gross capital formation as % of G.N.P.* (1) as % of (2)
		(1)	(2)	(3)
1948	766 + 192	958	8,862	*10.8*
1949	790 + 198	988	9,228	*10.7*
1950	882 + 221	1,103	9,771	*11.3*
1951	1,121 + 280	1,401	10,270	*13.6*
1952	862 + 216	1,078	10,046	*10.7*
1953	948 + 237	1,185	10,717	*11.1*
	Total	6,713	58,894	*11.4*

Sources: Appendix XII (I) and M-G.

Appendix XIV

Net Domestic Capital Formation (NDCF), Business Saving, Government Saving, and Personal Saving

(Reference: Table 32)

(Amounts in Rs crores)

Year	*NDCF Total*	Business saving	Govt. saving	Personal saving
	(1)	(2)	(3)	(4)
1948—49	725	370	-20	375
1949—50	724	357	106	251
1950—51	825	375	142	308
1951—52	1,068	419	226	423
1952—53	798	409	122	267
1953—54	905	430	97	378
Total	5,045	2,360	673	2,012

Sources: Col (1): upto 1951—52 from Table 15; later two years computed on the same basis but taking inventory at zero. (Vide Note in Appendix XII). Middle points of upper and lower limits.

Col (2): From Table 11.
Col (3): From ENI, p. 10.
Col (4): Obtained as the residue.

Appendix XV

Source and method of compiling data on profit rates in the United Kingdom, 1948—55

(Reference: Table 45)

A.

1. *Source:* Data on samples of between 567 and 661 companies which published their reports during October-December taken from *The Economist.*

Specific references are as follows:

(a) Figures for 1948 and 1949 are taken over directly from the *Economist* of January 28, 1950, p. 216. These are for a considerably larger sample.

(b) Data for 1950 & 1951 from the *Economist* of Febr. 9, 1952; 567 companies.

Do for 1952 from same source, January 23, 1954; 661 companies.
Do for 1953 from same source, January 15, 1955; 638 companies.
Do for 1954 & 1955 from same source, January 14, 1966; 617 companies.

2. *Specific data and method of arriving at some of them*

(a) Figures of paid-up capital are given.
(b) Net worth includes assets of subsidiaries. Debentures are deducted from total assets.
(c) Profits before tax are calculated by deducting the following items from Gross Trading Profits: Depreciation, Repairs, Directors' Emoluments etc., and Debenture Interest.
(d) Tax figures are given and therefore profits after tax are easily found.

B. Profits of *all* companies as percentage of paid-up capital.

Calculation of net profits as percentage of paid-up capital for *all* companies in U.K. is possible.

Gross profit and depreciation figures are available from the *Blue Book on National Income and Expenditure.* (We used the one for 1956). Figures of taxes and paid-up capital of all companies are published by the C.S.O. in the *Annual Abstract of Statistics.*

On this basis we arrived at the following percentage rates:

1938	7.0	1951	18.2	Average	
		1952	10.0		
1948	13.7	1953	12.4	1946—55	12.9
1949	9.7	1954	15.3		
1950	12.7	1955	16.0	1951—55	14.4

Appendix XVI

(Reference: pp. 147n & 169)

A. Dividend as Percentage of Nominal Share Capital of U.K.-Registered Companies Operating Abroad, and of Shares Held by U.K.-residents in Companies Registered Abroad

(Average of 1929—54)

By type of company

Type of company	Dividend percentage companies operating abroad	Companies registered abroad
1. Dominion & Colonial Rails —	.5	2.9
2. Indian Rails —	7.8	nil
3. U.S. „ —	3.0	2.9
4. Foreign „ —	1.0	1.8
5. Banks —	8.5	7.6
6. *Breweries etc.* —	*12.5*	5.8
7. Canals & Docks —	1.1	*88.9*
8. Commercial & Industrial —	6.1	9.6
9. Electric Lights & Power —	7.6	5.8
10. Financial, Land & Investment—	5.1	5.1
11. Gas —	5.7	9.5
12. Iron, Coal & Steel —	1.9	6.3
13. *Mines, Gold* —	*12.3*	*15.1*
14. *Mines other than Gold* —	*15.3*	*15.2*
15. Nitrates —	1.2	n.a.
16. *Oil* —	*14.0*	3.3
17. Rubber —	4.8	n.a.
18. Shipping —	4.3	6.9
19. *Tea & Coffee* —	*9.3*	nil
20. Telegraphs & Telephone —	5.6	6.7
21. Tramway etc. —	2.3	4.4
22. Waterworks —	5.5	

B. Dividend as Percentage of Nominal Share Capital of U.K-registered Companies Operating Abroad, and of Shares Held by U.K.-residents in Companies Registered Abroad

(Average of 1938—54)

By country

Name of country	Dividend percentage companies operating Abroad	Companies Registered Abroad
1. Eire —	7.7	6.1
2. British West Africa —	*10.3*	n.a.
3. „ East „ —	6.9	6.7
4. „ Central „ —	*17.6*	6.9
5. South Africa —	*28.1*	*15.7*

Name of country	Dividend percentage Companies operating abroad	Companies registered abroad
6. India	*12.9*	7.3
7. Pakistan	*12.9*	.
8. Burma	6.1	.
9. Ceylon	*10.7*	.
10. Malaya	7.8	*17.5*
11. British North Borneo	6.4	.
12. Australia	7.9	9.2
13. New Zealand	7.2	6.5
14. Canada	5.1	5.1
15. British West Indies	*10.5*	1.9
16. Other	11.0	18.7
Foreign countries		
17. Europe	.	4.8
18. Burma	.	.
19. China	2.2	.
20. Netherlands East Indies	2.2	.
21. Persia	14.7	.
22. Egypt	*12.2*	*56.5*
23. Irish Republic	.	.
24. Mexico	*9.6*	2.2
25. Cuba	0.9	0
26. Argentina	1.8	3.8
27. Brazil	3.3	3.7
28. Chili	1.6	.
29. Peru	1.2	.
30. Uruguay	3.0	.
31. Rest of South Africa	7.9	5.7
32. Other	7.0	5.7
33. Not Classifiable	10.9	7.9
34. U.S.A.	nil	8.9

Sources: (1) Lord Kindersley's annual articles in the *Economic Journal* 1929—39; and (2) Bank of England brochures on British Overseas Investments.

For a detailed analysis of these data, the reader is referred to the writer's essay on *Levels and Fluctuations of Dividend in Four High-income and Low-income Countries*, etc. (Netherlands Economic Institute, Rotterdam).

Appendix XVII

A. *Regression equations for corporate savings in India, 1946—1955*

— All industries —

(Reference Chapter 6, § 6.5

Serial no	Period	Basic sample	Coefficients of regression				Intercept	Coefficient of correlation		Form of equation tested	Remarks
			Y_{Bc}	L	W	D_{-1}		Uncorr. R	Corr. R		
1	1946-51	TEC	.719				-8.5	.966	.958	Abs	
			(.096)				(2.8)				
2	1950-55	RBI	.734				-15.4	.979	.973	,,	
			(.077)				(3.5)				
3	1946-55	TEC	.783	-1.67	-.022		-3.0	.991	.987	,,	
			(.050)	(.98)	(.010)		(2.6)				
4	do	do	.794	-.83	-.032			.990	.986	,,	
			(.054)	(.72)	(.005)						
5	do	do	.783	-.80	-.031			.981	.976	Rel.	
			(.064)	(.77)	(.006)						
6	do	do	.804		-.034			.979	.976	,,	
			(.059)		(.005)						
7	do	do	.712	-3.47			-8.3	.983	.978	Abs	
			(.050)	(.74)			(1.5)				
8	do	RBI	.764	-4.21			-12.5	.982	.977	,,	
			(.059)	(1.19)			(2.1)				
9	do	RBI	.797		-.032			.983	.981	Rel.	In tested eq. D_{-1} W_{-1} (net wortht lagged)
			(.053)		(.004)						
10	do	RBI	.849		-.030	-.12		.991	.987	,,	
			(.049)		(.010)	(.21)					
11	do	RBI	.839		-.024	-.25		.992	.990	,,	In tested eq. D_{-1} / W (net worth not lagged).
			(.043)		(.010)	(.20)					

S_c = Corporate savings (10^7 Rs)

Y_{Bc} = Corporate profits (10^7 ,,)

W = Corporate net worth (10^7 ,,)

L = $\begin{cases} 0 \text{ for } 1946\text{—}1951 \\ 1 \text{ ,, } 1952\text{—}1955 \end{cases}$ in the series extended forward from the TEC-series.

= $\begin{cases} 0 \text{ for } 1946\text{—}1949 \\ 1 \text{ ,, } 1950\text{—}1955 \end{cases}$ in the series extended backward from the RBI-series.

Abs(olute) = variables themselves entered in the tested equations.

Rel(ative) = variables in tested equations expressed as ratios of net worth.

Figures between brackets indicate estimated standard errors.

Sources: Based on data provided in (1) TEC. Report, Vol I (2) RBIB, September 1957.

B. *Regression equations for corporate savings in India, 1946—1955*

— Selected industries —

(Reference: § 6.7, Table 54)

Serial no.	Industry	Coefficients of regression		Coefficient of correlation		Remarks
		Y_{Bc}	W	Uncorr. R	Corr. R	
12	Cotton	.932* (.031)	-.039 (.003)	.996	.995	
13	Iron & Steel	1.019* (.054)	-.064 (.008)	.989	.987	Coefficient of Y_{Bc} should be $<$ 1, hence equation might be: $S_c = Y_{Bc}$—0,062W
14	Sugar	.882 (.148)	-.039 (.015)	.903	.890	
15	Jute	.685 (.060)	-.031 (.004)	.971	.967	Coefficient of Y_{Bc} significantly lower than the coefficients for the others (mutually *not* significantly different).
16	Cement	.442* (.072)	-.006 (.007)	.908	.896	As IV. Coeff. of W not significantly different from zero.
17	Chemicals	.897* (.138)	-.026 (.007)	.917	.906	
18	Tea Plantations	.681 (.045)	-.045 (.007)	.983	.981	As IV

All equations drawn up and tested in a way analogous to eq. 9, i.e. with variables expressed as ratios of net worth (hence giving rise to zero-intercepts in the transformed equations above), and based on series extended backward from the R.B.I.-sample.

* significantly different from the marginal rate of saving for all industries (together). Sources: As in Appendix XVII-A.

Appendix XVIII

Residuals of equation 11 of Appendix XVII-A

(Reference: § 6.5.1 b-iv; also § 6.5.5)

Year of lagged dividend	'46	'47	'48	'49	'50	'51	'52	'53	'54
Residuals	—.08	.33	.12	—.06	.04	—.04	—.03	—.25	—.04

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ERRATA *

Page

23 Line 4: Insert „Section 2” between „then” and „proceeds”.

23 Line 5: Read „section 3” in place of „section 2”.

53 Last line of footnote 1: Read 3 in place of 2.

70 Table 7: 4th line from „Branches”: Read „117” in place of „175”.

99 Fifth line from bottom (text): Add footnote sign „2” after „chapter” and add footnote no. 2 at the end of the page as follows: „However, the sectoral saving-income ratios are presented in a summary table at the end of section 4. See page 124.

117 Table 30: India, lower limit for the years 1949, 1951 and postwar average respectively 9.2, 12.4, 10.1. Upper limit: Replace the whole line by: 10.8 10.4 11.2 13.6 10.4 11.1 11.3

120 5th line from bottom: Delete „Denmark”. Then replace the last 4 lines with:
„Luxembourg is much industrialized, but the type of industrial organisation appears to be largely noncorporate. Denmark can be easily treated as a different type of economy — with a preponderance of agriculture. Moreover, Denmark's industry is characterised by the cooperative rather than the corporate form of organisation.”

137 At the end of the footnote: Read § 5.6.3 in place of § 5.6.2.

181 3rd line: Delete the word „current”.

182 3rd line: Read „are” instead of „is”.

196 1st line of paragraph numbered 2: Insert „to” between „relating” and „the”.
2nd line from bottom (text): Delete „3.”

197 Last para, 3rd line: Delete „except 10 and 11,” and read, „Now, in all our equations the correlation co-efficient . . . . etc.”

215 1st line: Read $\bar{\varepsilon}$ instead of a simple ε.

* These are some of the important errata. Sincere apologies are offered for the inconveniences caused.

Page

216 7th line: Do.

225 2nd line of section 4: Delete the footnote sign (after „enterprise").

229 7th line from bottom (text): Insert „an" between „of" and „anti-trust".

241 A. (Sources given . . . etc): Read „p. 85" instead of „p. 84".

251 Indices (Year 1949): Read „100" in place of „110".

261 *I The lower limit:*

For the year 1949, read „681 + 170 = 851" in place of „685 + 171 = 856".
Do Col. 3, read „9.2" in place of „9.3".
For the year 1951. Col. 2, read „10,244" instead of „12,044". Col. 3, read „12.4" instead of „10.5".
Total: Cols. 1, 2 & 3 respectively „5,946; 58,741; 10,1" instead of „5,951; 60,541; 9.8".

II The upper limit:

Replace all the figures by the following series:

		(1)	(2)	(3)
1948	764 + 191 =	955	8861	10.8
1949	766 + 192 =	958	9222	10.4
1950	871 + 218 =	1089	9768	11.2
1951	1120 + 280 =	1400	10270	13.6
1952	834 + 209 =	1043	10039	10.4
1953	948 + 237 =	1185	10717	11.1
	Total	6,630	58,877	11.3

266 First 3 lines under „Remarks" on eq. 9: Read „In tested eq. $\frac{D_{-1}}{W_{-1}}$ etc."

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